

Measuring Wellbeing

Frameworks for Australian Social Statistics

2001

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AUSTRALIAN BUREAU OF STATISTICS

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PREFACE.....

This book describes the conceptual organisation of social statistics in the Australian Bureau of Statistics (ABS). It presents both an overall framework and various conceptual models used in each of the nine main areas of social concern that make up ABS social statistics. By bringing this information together in one place, the book is intended to provide a reference point for anyone wishing to understand ABS social statistics generally, or the range of issues associated with areas of analysis for which social statistics are provided.

The overall framework presented in this book has been central to the ABS's work in social statistics over recent decades and is expected to maintain its value for many years to come. However, the ABS recognises that all frameworks will continue to evolve to accommodate both changing perspectives and changing information needs. For this reason, the frameworks and issues presented in this book should be seen as being representative of a range of ways in which measuring wellbeing might be approached. Certainly it is recognised that there are many other frameworks that have been developed to support the analysis of particular social issues.

Readers interested in gaining a broad overview of social conditions in Australia are referred to the publication *Australian Social Trends* (Cat. no. 4102.0) produced on an annual basis since 1994. Structured according to the framework described in this book, *Australian Social Trends* presents an array of social indicators for each area of concern, and draws together a wide range of statistics to reflect on current social issues and trends. It serves as a practical illustration of how the frameworks described here are applied.

The production of this publication would not have been possible without the contributions of numerous individuals. These include ABS statisticians with responsibilities for leading statistical development in each area of concern, and officers from other agencies who, as major users of ABS statistics, assisted by reviewing and commenting on draft chapters. I would particularly like to thank those most directly involved, namely; Ms Marion McEwin who led the project, Mr Mike Giles, a former social statistician with the ABS, for contributing core ideas for the overall project and some of the content, and Ms Imogen Wall and Mr Horst Posselt who were the principal authors.

Suggestions and comments on the contents of the publication are welcome. To express your views, please contact the Director of Social Analysis and Reporting at the following address.

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October 2001

ABBREVIATIONS.....

The following abbreviations have been used throughout this publication.

Australia, States and Territories of Australia

Aust.	Australia
NSW	New South Wales
Vic.	Victoria
Qld	Queensland
SA	South Australia
WA	Western Australia
Tas.	Tasmania
NT	Northern Territory
ACT	Australian Capital Territory

Other abbreviations

ABS	Australian Bureau of Statistics
ABSCQ	ABS Classification of Qualifications
ACER	Australian Council for Education Research
ACLC	Australian Culture and Leisure Classification
AF	Aetiological Fractions
AGSP	Australian Government Printing Service
AIC	Australian Institute of Criminology
AIDR	Australian Illicit Drug Report
AIHW	Australian Institute of Health and Welfare
ANZ	Australia and New Zealand Banking Group Limited
ANZSIC	Australian and New Zealand Standard Industrial Classification
ANZSPC	Australian and New Zealand Standard Product Classification
ASDCD	Australian Standard Classification of Drugs of Concern
ASCED	Australian Standard Classification of Education
ASCO	Australian Standard Classification of Occupations
ASGC	Australian standard Geographical classification
ASNA	Australian System of National Accounts
ASOC	Australian Standard Offence Classification
ATO	Australian Taxation Office
AusDiab	Australian Diabetes, Obesity and Lifestyle Study
AWE	Average Weekly Earnings
BEACH	Bettering the Evaluation and Care of Health
BRS	Bureau of Rural Sciences
Canberra Group	International Expert Group on Household Income Statistics
CD	Census Collection District
CDEP	Community Development Employment Projects
CDNANZ	Communicable Diseases Network Australia New Zealand
CHINS	Community Housing and Infrastructure Needs Survey
CIDI	Composite International Diagnostic Instrument
COAG	Council of Australian Governments
COMIMA	Council of Ministers of Immigration and Multicultural Affairs
CPI	Consumer Price Index
CSDA	Commonwealth State Disability Agreement
CSDA MDS	Commonwealth State Disability Agreement Minimum Data Set
DAA	Department of Aboriginal Affairs
DALY	Disability Adjusted Life Year measure
DETYA	Department of Education, Training and Youth Affairs
DEWRSB	Department of Employment, Workplace Relations and Small Business
DFACS	The Commonwealth Department of Family and Community Services
DHAC	Department of Health and Aged Care
DIMA	Department of Immigration and Multicultural Affairs
DSM-IV	Diagnostic Statistical Manual
DSRU	Dental Statistics and Research Unit
ERP	Estimated Resident Population
ESCAP	Economic and Social Commission for Asia and the Pacific

Other abbreviations *continued*

GDP	Gross Domestic Product
GFS	Government Financial Statistics
GP	General Practitioner
GPSCU	General Practitioner Statistics Collection Unit
HACC	Home and Community Care program
HECS	Higher Education Contribution Scheme
HES	Household Expenditure Survey
HILDA	Household, Income and Labour Dynamics survey
ICD	International Statistical Classification of Diseases and Related Health Problems
ICD-10	International Statistical Classification of Diseases and Related Health Problems — 10th revision
ICECI	International Classification of External Causes of Injury
ICF	International Classification of Functioning, Disability and Health
ICIDH	International Classification of Impairment, Disability and Handicap
ICPC2	International Classification of Primary Care, second revision
ICW	Income, Consumption and Wealth framework
ILO	International Labour Organisation
LFS	Labour Force Survey
LGA	Local Government Area
LSAY	Longitudinal Surveys of Australian Youth
MCEETYA	Ministerial Council for Education, Employment, Training and Youth Affairs
MPS	Monthly Population Survey
NATSEM	National Centre for Social and Economic Modelling
NCCH	National Centres for Classification in Health
NCSCH	National Cancer Statistics Clearing House
NCSIMG	National Community Services Information Management Group
NCVER	National Centre for Vocational Education Research
NH&MRC	National Health and Medical Research Council
NHDD	National Health Data Dictionary
NHIM	National Health Information Model
NHIMG	National Health Information Management Group
NHMP	National Homicide Monitoring Program
NHPA	National Health Priority Areas
NHPC	National Health Performance Framework
NHPF	National Health Performance Framework
NHS	National Health Survey
NOHSC	National Occupational Health and Safety Commission
OECD	Organisation for Economic Co-operation and Development
PBS	Pharmaceutical Benefits Schedule
PES	Post Enumeration Survey
PHEC	Private Hospitals Establishment Collection
QEAS	Quarterly Economic Activity Survey
SAAP	Supported Accommodation Assistance Program
SAL	ABS Survey of Aspects of Literacy
SAM	Social Accounting Matrix
SCRCSSP	Steering Committee for the Review of Commonwealth / State Service Provision
SEAS	Survey of Employment Arrangements and Superannuation
SEE	Survey of Employment and Earnings
SEIFA	Socioeconomic indexes for areas
SET	Survey of Education and Training
SLA	Statistical Local Area
SNA	System of National Accounts
SNA93	System of National Accounts (most recent standards, 1993)
STIK	Social Transfers In Kind
TAFE	Technical and Further Education
TIMSS	Trends in Mathematics and Science Studies
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VET	Vocational Education and Training
WAD	Workplace Agreements Database
WCI	Wage Cost Index
WHO	World Health Organisation

CHAPTER 1 A SYSTEM OF SOCIAL STATISTICS

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INTRODUCTION

'... growth is not an end in itself, but rather an instrument for creating better conditions of life.'

Ministerial Council of OECD, 1970¹

A major driving force in human activity is the desire for optimal health, for better living conditions and improved quality of life. Individuals seek to achieve this for themselves, for their family, and for the communities of which they are a part. A fundamental charge of government is to create better conditions of life for the population, and many community groups and private organisations also work towards this objective. All these players need information to guide their decisions in this endeavour. A central role of the ABS, as the national statistical agency, is to provide such information by producing statistics that describe the wellbeing of individuals and of society as a whole. To this end, the ABS provides statistics that are concerned with living conditions and social arrangements, that monitor progress towards social goals, and inform the decisions of governments, community groups, organisations and individuals as they work to create better conditions of life.

Human welfare is intimately connected with the generation of wealth that economic activity allows, and with the state of the natural environment, on which all life depends. Thus the system of social statistics described in this book complements the system of national accounts used to analyse and evaluate the performance of the economy, and frameworks used to measure the state of the environment. All these statistical systems continue to evolve over time. Satellite accounts and social accounting matrices are now part of the system of national accounts, as are frameworks that support analysis of environmental issues. Similarly, the system of social statistics addresses economic wellbeing and produces measures of economic activity, such as unemployment rates and household expenditure.

Key elements of the system

The system of social statistics has evolved in keeping with changing perceptions about the scope and dynamics of human wellbeing. The Organisation for Economic Co-operation and Development (OECD) originally proposed that wellbeing could be effectively measured by identifying some key aspects of life that are fundamental to individual wellbeing, such as good health, sufficient income, rewarding work, and so on. The system of social statistics presented here focuses on eight such areas as a central organising principle. The key social and statistical issues for each of these areas of concern comprise the remaining chapters of this book (e.g. health, family and community, education and training, work, economic resources, housing, crime and justice, and culture and leisure).

Social statistics are produced by taking counts of units (for example, individuals, family units, dwellings) with particular characteristics (e.g. education or income or physical characteristics). These counts are aggregated to provide information from

Key elements of the system *continued*

which inferences can be made about all similar units, individuals, families, or the population as a whole. Such measures can be selected, constructed and combined in a wide range of ways in order to produce complex indicators of the wellbeing status of groups in society, and of society itself. These can be compared as they change over time to show, at a broad level, whether conditions of living are getting better or worse. Each area of concern has a platform of these social indicators that provides a base for analysing wellbeing in that area. For example, in the area of health, the ABS uses indicators such as the mortality rate to describe the population's wellbeing. In the area of work, indicators such as the unemployment rate perform the same function.

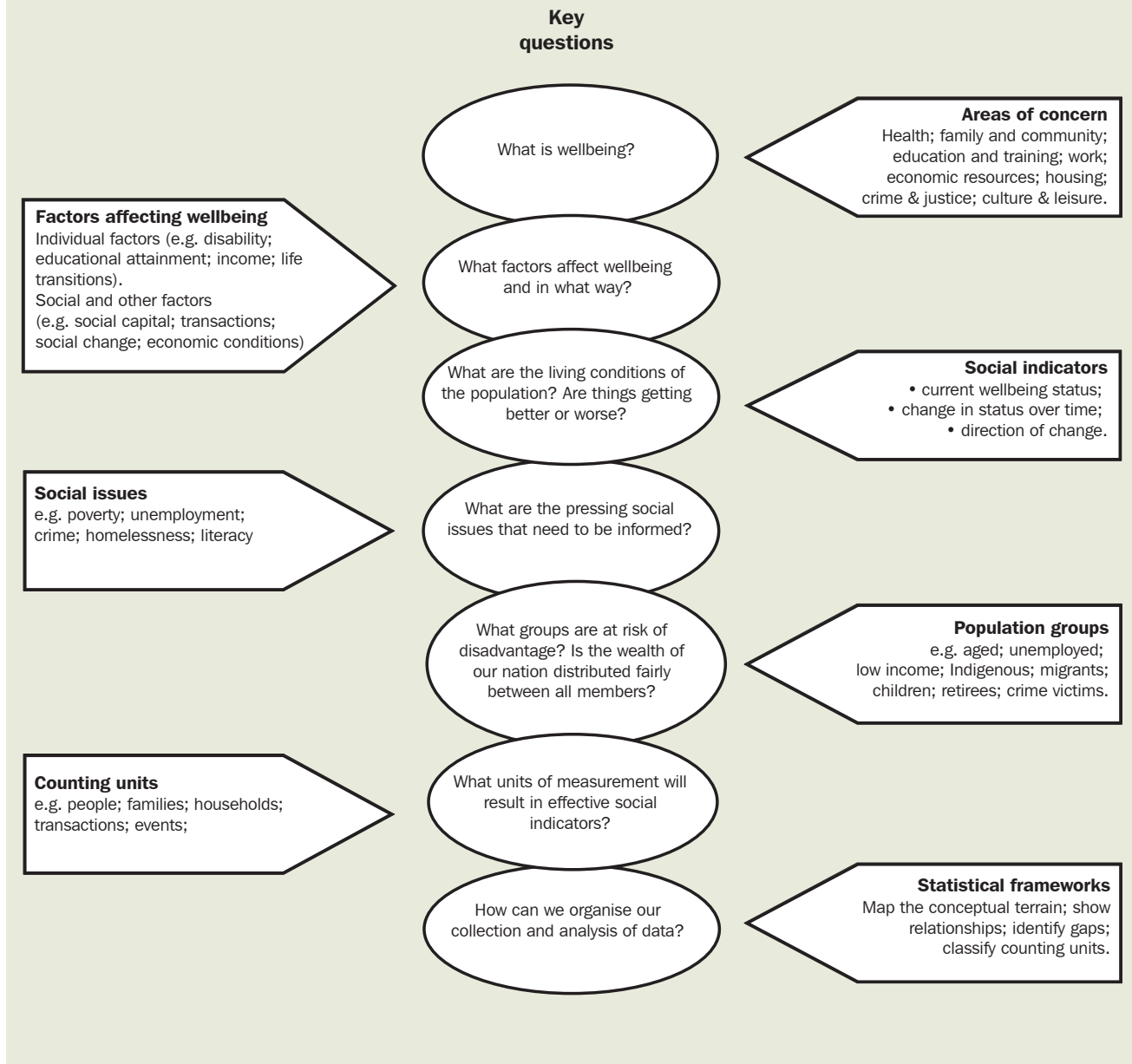
An important criterion for selecting appropriate social indicators is their ability to provide governments with feedback on specific social policy, and to inform current social issues. For this reason, the major social issues governments and communities wish to understand provide a useful focus for the development of statistical frameworks, collections and analysis within each area of concern. Key social issues for each area are outlined in this book.

Statistics indicating levels of wellbeing and changes in wellbeing over time inevitably lead to questions about why things get worse, and how things can get better. It is clear that some social environments assist people to become more socially capable than others, and that some groups face greater disadvantage than others (e.g. Indigenous people, people with a low income or with a disability). In order to support analysis of advantage and disadvantage among people in society, the ABS also identifies population groups of particular interest in its system of social statistics.

Recently it has been acknowledged that beyond the fundamental needs of individuals addressed by the areas of concern framework, the health of the society itself, as an integrated whole, can be an important factor in understanding why conditions of life change and how they can be improved. The perception that a community itself can be subject to low or high levels of wellbeing, e.g. to greater or lesser degrees of cohesion or vitality, gives rise to new questions about how wellbeing can be measured. Positive community functioning relies on the underlying beliefs people hold about obligation, reciprocity and philanthropy, on the prevalence in the community of attitudes such as trust, in other people and in community infrastructures, and on the extent to which individuals and groups (both profit and non-profit) participate in the community. Such factors can be difficult to measure but are important precursors to wellbeing at a societal level. Also important are the type, quality and quantity of interactions that take place between community members, both as individuals and as groups. A framework that maps the context for such interactions is used throughout this book. This framework identifies units of measurement such as transactions, social exchanges and social contracts, that can form the basis of data that indicates the wellbeing of communities.

The several interconnected and evolving themes that are central to the ABS system of social statistics are represented in the diagram opposite.

ABS SYSTEM OF SOCIAL STATISTICS



WHAT IS WELLBEING?

A first step in producing meaningful statistics is to map the conceptual territory that is to be measured. In the case of measuring wellbeing, this is a large task. From birth to death, life enmeshes individuals within a dynamic culture consisting of the natural environment (light, heat, air, land, water, minerals, flora, fauna), the human made environment (material objects, buildings, roads, machinery, appliances, technology), social arrangements (families, social networks, associations, institutions, economies), and human consciousness (knowledge, beliefs, understanding, skills, traditions). Wellbeing depends on all the factors that interact within this culture and can be seen as a state of health or sufficiency in all aspects of life. Measuring wellbeing therefore involves mapping the whole of life, and considering each life event or social context that has the potential to affect the quality of individual lives, or the cohesion of society. At the individual level, this can include the physical, emotional, psychological and spiritual aspects of life. At a broader level, the social, material and natural environments surrounding each individual, through interdependency, become part of the wellbeing equation.

Because of this diversity, the process of measuring wellbeing involves making value judgements about what aspects of life are important to wellbeing and what social issues are most pressing. It involves making a range of pragmatic decisions about what phenomena will provide the greatest insight into these issues, how these phenomena can be measured accurately, and how the resulting measures can be combined, constructed and presented to be informative and accessible.

There can be no single measure of wellbeing that satisfies all parties interested in helping people improve their lives. Rather, a range of measures needs to be available to researchers, policy makers, welfare providers and other community groups and members, who will select from this range to inform their own particular issues of interest. While some indicators are fundamental to the measurement of wellbeing (e.g. mortality rates, inequality measures, unemployment rates), at any one time the range of social indicators produced by the ABS will be a subset of all possible wellbeing indicators, influenced by the preoccupations and concerns of contemporary culture. The focus of social statistics will also be contained by what social conditions can be appropriately influenced by policy and intervention.

Individual wellbeing can be measured using people's subjective evaluation of themselves, based on their feelings, or by collating any number of observable attributes that reflect on their wellbeing. In some ways, wellbeing might best be assessed subjectively, as it is strongly associated with notions of happiness and life satisfaction. Thus personal wellbeing might be measured in terms of how happy or satisfied people are with their life or with aspects of their life (their job, health, etc.). While such measures can be difficult to interpret, subjective measures, as with other statistics, can be aggregated and monitored over time, and, in theory, provide a picture of the nation's view as to whether living conditions are getting better or worse.

WHAT IS WELLBEING? *continued*

The other approach, more strongly based in scientific tradition, is to measure wellbeing by counting people with particular attributes. For example, aspects of the population's health can be assessed by counting the number of people who have particular health conditions; economic wellbeing can be assessed, in part, by counting the number of people with particular levels of income or wealth. The ABS has given primacy to objective measures of wellbeing, largely for the pragmatic reasons that such information is most useful to government agencies concerned with the delivery of services, and is more readily interpreted. However, subjective measures can provide an important supplement to objective measures, and for this reason are provided by the ABS within specific areas of concern.

AREAS OF CONCERN

When asked what contributes most to their wellbeing people tend to immediately think of good health and sufficient income. Many may add a job they enjoy, harmonious personal relationships, and leisure activities. Historically, the development of social statistics frameworks began with this intuitive approach of identifying fundamental human needs.

In the early 1970s, the OECD proposed that wellbeing could be measured by defining goal areas, or areas of concern, which it defined as denoting 'identifiable and definable aspirations or concerns of fundamental and direct importance to human wellbeing'.² The OECD selected these areas, 'based . . . on their direct and fundamental relationship to wellbeing'. Recognising this work, the ABS selected a number of aspects of life that contribute to individual wellbeing on which to base its system of social statistics. At the time, these aspects were considered core in relation to the many dimensions of human existence. Each now corresponds with a generalised area of concern within the system of social statistics. The term 'area of concern' is apt, as it suggests the overall concern a society has with the wellbeing of its citizens.

Aspects of life contributing to wellbeing	Areas of concern
Support and nurture through family and community	Family and community
Freedom from disability and illness	Health
Realisation of personal potential through education	Education and training
Satisfying and rewarding work both economic & non-economic	Work
Command over economic resources, enabling consumption	Economic resources
Shelter, security and privacy, through housing	Housing
Personal safety and protection from crime	Crime and justice
Time for and access to cultural and leisure activities	Culture and leisure

AREAS OF CONCERN *continued*

As indicated above, this list is a selected subset of a larger list of important aspects of life that might be concerned with emotions (e.g. love and self worth), spiritual commitment, or other factors of life. Human rights, which can sometimes be taken for granted but which are crucial to personal wellbeing, might also be included (e.g. freedom of speech, freedom of religion, access to an independent court and justice system). Attitudes that foster community cooperation and cohesion, such as trust and obligation are becoming more widely recognised as contributing significantly to wellbeing. Many of these factors of life, however, are embraced indirectly by areas such as family and community, culture and leisure, or crime and justice. Others, such as self worth, are affected by factors such as satisfying work and good health, and can be addressed in relation to each of the areas listed above. Other concerns associated with wellbeing also apply across all areas, e.g. concerns relating to access to services.

An area that supports the production of social statistics and is relevant to all the eight areas listed above, is that of population. This area is concerned with demographic measurement and trends. It supplies frameworks and methodological support for analysis across all social statistics. Issues such as population ageing and growth and the implications of these for society and the natural environment are addressed within this area.

It would be inappropriate to consider these areas of concern in isolation from one another. All aspects of life are connected to a greater or lesser extent. An individual's working life affects their access to economic resources and to leisure time, and may be closely linked to their education. An individual's health affects, and is affected by, all other aspects of their life, such as their family and community environments. Despite this interrelation, however, the groupings discussed in this book function well as a broad organising principle for the multifaceted nature of social statistics.

Normative values

Within some areas of concern, it can be useful to establish particular standards or benchmarks against which levels of wellbeing can be compared (e.g. previous or later levels of wellbeing, or levels experienced in other countries or in different States, can be compared to these benchmarks). For instance, the income of a particular population group can be measured against the average income of the population as a whole, and this relationship compared over time. Such comparisons can show whether the number of people in that group whose income is below a certain level is increasing or decreasing. Choosing the appropriate level at which to set wellbeing benchmarks (e.g. poverty lines) in order to make such comparisons can be difficult. While some conditions are clear and unambiguous (e.g. a person suffering from terminal cancer does not have good health), generally, there is no absolute line that universally differentiates a well person from a sick person, a person with a reasonable standard of living from one living in poverty, a person who is well educated from one who is poorly educated, etc.

There are, nevertheless, a range of values held and expressed in society which enable judgements to be made about where to set levels that can be used as statistical benchmarks. These, so called normative values, are states that are generally

Normative values *continued*

considered normal, standard or acceptable. To continue with the above income example, if a poverty line is drawn based on income, it needs to reflect what is normal and acceptable. It can be based on what goods or opportunities should be within the means of all households, or calculated by a formula, e.g. the proportion of households with income less than half the median household income could be said to be in poverty. When measuring literacy, a benchmark that pinpoints a specific level of skill gives meaning to measures above and below that level.

Normative values may change over time and vary from country to country. For example, what is considered unacceptable in Australia (e.g. below the norm), might be considered acceptable elsewhere, and vice versa. What was acceptable in Australia forty years ago may be unacceptable now. However, in a particular country at a point in time, it is possible to develop agreed levels of achievement for a particular factor that can be measured and compared, both between groups in the community and over time. Another way of measuring the relativity of a social phenomenon is to observe the movement of a variable as it either grows or diminishes over time (e.g. divorce). This is the basis on which social indicators are predicated.

SOCIAL INDICATORS

The early development of ABS social statistics was influenced by the 1970s OECD Social Indicators Program. This program proposed that wellbeing could be measured using sets of key descriptive statistics, or statistical constructs, categorised under the social concerns headings outlined above. It labelled these social indicators. It defined a social indicator as 'a direct and valid statistical measure which monitors levels and changes over time' and stated that 'the primary aim of such indicators should be to summarise the social status of OECD Member countries, but also give guidance on the cost effectiveness of measures taken to pursue social objectives'.³

Status and response model

The original OECD social indicators were designed to support a 'status and response' model of social wellbeing. That is, they were designed to measure both wellbeing status in a particular area, and also responses directed at changing that status. For example, a status indicator might be the prevalence of illness or disability in a particular region, and a corresponding response indicator might be the amount of spending on the health care system in that region. A later status measure might show a change in levels of sickness, that may have resulted from the spending response. Taken together, these status and response measures indicate both the population's current level of overall wellbeing in an area of concern, and also changes over time.

Development of social indicators

Internationally and in Australia, interest in social indicators has fluctuated. There was an initial period of international activity during the 1970s when, taking its lead from both the OECD and the United Nations (UN), the ABS developed a system of status and response indicators within a hierarchy of concerns and sub-concerns. At the end of the 1970s this was a major focus of the ABS system of social statistics.⁴ However, even at this early stage, some aspects of the social indicator program were criticised. The UN argued that status and response indicators provided too narrow a focus and

Development of social indicators *continued*

that more wide ranging indicators addressing underlying circumstances and conditions should also be used.⁵ There was also debate about what measures should be designated as social indicators, and what distinguished social indicators from social statistics. In fact, any statistic, either simple or derived, may be viewed as a social indicator if it reflects a social issue or idea or tells you something about social conditions (a guide to selecting effective social indicators is provided opposite).

Because many social indicators were summary in nature, and focused on monitoring wellbeing at a broad level (e.g. morbidity / divorce / unemployment rates), problems appeared when governments attempted to apply indicators to more micro level social planning, policy making and evaluation. Government programs were directed at particular target groups in the community (e.g. frail aged, carers, long-term unemployed), and planners wanted these groups to be identified in the statistics. They needed specific information about them such as age, country of birth and income level. These kinds of characteristics were often used as eligibility criteria for pensions and services, so data on them was particularly valuable in welfare planning. Program planners tended to ignore generalised social indicators and to demand statistics tailored closely to their specific program planning and evaluation needs.

Nevertheless, the social indicator movement fundamentally changed the way in which the ABS approached the production of social statistics. Social indicators were not just items of data, but statistical constructs (e.g. rates, ratios and other more complex constructs) designed to inform social debates. The process of developing informative and appropriate indicators for each area of concern assisted in focusing statistical activity on key social issues. The production of indicators on a time series basis meant the ABS became more involved in identifying and reporting on the trends observable from these time series.

Social indicators continue to play an important role in ABS social statistics as they do in the information systems of other national and international statistical agencies.⁶ They are used to measure and report change, and are valuable in focusing public discussion and informing government decision making. They give a quick, uncomplicated overview of social conditions by summarising aspects of the wellbeing status of the community or by indicating broad level community responses to social issues. In addition, the ABS has supplemented its social indicators program over the last decade or so by coordinating information on population groups, and formulating and building on statistical frameworks. Social issues, population groups and statistical frameworks are discussed in more detail below.

SOCIAL ISSUES

Social issues are matters of concern to governments and the community. They reflect aspects of society, its people and institutions that people want to, and can, do something about. They may be broadly or narrowly focused and include, for example, the cost of the health system; poverty and homelessness; imprisonment rates of Indigenous youth; changing workplace relations; housing needs of low income families; crime rates; the strength of family and community relationships;

SUCCESSFUL SOCIAL INDICATORS ARE:**Reflective of a social issue or idea**

Social indicators need to reflect important social issues such as the success or failure of the society to meet needs in a specific area, or policy decisions of government. The unemployment rate reflects a lack of available work. Accident and suicide rates reflect the extent of premature death in the society, or in a particular group. School retention rates reflect movement towards education policy goals.

Available as a time series

While data about a single point in time can allow for comparison between population groups or geographical regions, it is only when this same indicator is repeated at a later time that any change in the phenomenon can be assessed.

Meaningful and sensitive to change

A successful indicator needs to closely reflect the phenomenon it is intended to measure, and be realistic. It needs to relate to associated measures in a logical way and should ideally respond to changes in the real world. For example, changes in average population height will not directly or quickly reflect changing levels of nutrition.

Summary in nature

A large mass of information can be represented by a few indicator time series, that bring out the main features of a social issue, e.g. female to male earnings ratios, or the dependent age ratio. In some circumstances however, the summary nature of indicators can be misleading, e.g. a low perinatal mortality indicator for the total population can mask the higher perinatal mortality rates of Australia's Indigenous population.

Able to be disaggregated

Indicators must not only reveal national averages but be capable of finer division, e.g. many social indicators vary sharply by age and sex. Other often used disaggregations are family type, employment status, occupation, ethnic background, geographical area and level of educational attainment. These allow indicators to target groups of particular interest (e.g. lone parents, people with a disability, young people or those with low literacy).

Intelligible and easily interpreted

Indicators need to be readily understood and not overly complex. It should be obvious exactly what an indicator is showing, and how it can be applied in practice. Life expectancy tables are often based on complex statistical and actuarial techniques, but can be readily understood by the public.

Able to be related to other indicators

A variety of indicators can support a central measure or show relationships and interdependencies. For example, numbers of hospital beds per 1,000 people, while a useful measure, only provides a full picture of the availability of institutionalised care when viewed together with data on the average length of stay in hospital.

SOCIAL ISSUES *continued*

and the extent to which people participate in artistic or sporting activity. There are some basic questions, shown below, that will always be of interest to the community and governments and can assist in identifying the key social issues for an area.

Levels and trends	What is the current status of wellbeing in an area (e.g. current unemployment rate), and how is it changing over time (e.g. unemployment trends)? Are things getting better or worse?
Population groups	How is wellbeing in that area distributed through the population and between sub-groups in the population? Are particular groups disadvantaged?
Evaluating response	What is the effectiveness and efficiency of the systems and infrastructures that administer services in that area? For example, how well does government policy translate into improved wellbeing in that area?
Causal factors	What factors affect wellbeing in that area? What causes levels of wellbeing to be high or low, and what causes them to change over time?

Each social issue has a set of circumstances that surround and define it. For instance, a social issue may be largely defined by economic conditions. The social issue of the declining population in some smaller inland towns has at its heart the loss of industries, such as mining, grain and sheep growing, which has lead to a lack of employment opportunities, reduction in banking and medical services, and the migration of young people to the coastal cities. The social issue of family dissolution and reformation has been influenced by many factors, including changing gender roles and expectations, changes to divorce laws and the availability of economic support for lone parents. A map of the circumstances surrounding this issue therefore needs to encompass factors affecting broad social change, and the history of changes to the legal system and government legislation.

The terrain surrounding social issues may also be defined by the characteristics of the key players involved. The issue of childcare can be understood from different perspectives depending on whether it is parents and extended family who are the key players (in which case the issue revolves around the daily schedule of the players); parents, the government and child care services (in which case the issue revolves around funds, costs, and type and quality of service); or parents and children (in which case family relationships are central).

The key social issues for each area of concern need to be identified, as does the circumstantial terrain associated with each issue. If these are used as a focus when collections, output and analysis are being developed, the resulting statistics will be more relevant to information needs.

POPULATION GROUPS

Population groups of interest to governments and communities usually consist of people who may be disadvantaged compared to the rest of the population in terms of one or more areas of life (e.g. unemployed people are of interest in the area of work). The group might be eligible for a response from the community that would aim to overcome or counteract this disadvantage (e.g. job search allowance, retraining). The ABS has always recognised that its system of social statistics needed to identify groups in society who were vulnerable to and at risk of social disadvantage. However, as noted above, it has become increasingly important to identify these groups in terms of whether they are actual or potential targets for government intervention. During the 1980s, the ABS put effort into ensuring population groups were defined in a standard way in statistical collections. This standardisation meant data about groups of special interest could be brought together from different surveys, or from surveys conducted at different points in time. This allowed the needs of these groups to be analysed in more depth, and for changes in needs that occurred over time to be identified.

The ABS classifies people into population groups based on one or more of their characteristics, such as their age or employment status. For example, the variable 'country of birth' can identify people who have migrated to Australia. When this variable is used in a survey on the labour force, the labour force experience of migrants can be analysed. To further assist analysis, a second variable, 'period of residence', can be added. This separately identifies those who have been in the country for some time from those who have just arrived, and can provide insight into why some migrants experience different social problems to others.

Because of their function in describing groups of people, these variables are often referred to as explanatory variables. It is often possible to target a population group so its identifying variables closely align with the eligibility criteria for a planned government service. By analysing data about this targeted group, government planners can estimate potential numbers needing the service, and likely budgetary costs. Data from successive ABS surveys that identify this same population group provide a means of analysing the take up rates of the service and the extent to which the consumption of the service has modified the wellbeing status of the group.

The ABS has collected and published statistics for a wide range of population groups (e.g. long term unemployed, retired people, crime victims, Indigenous people, lone parents). The array of groups identified by the ABS is not based on a fixed or standard list. Its content varies over time, reflecting changing pressures in society and changing needs of statistical users. The content is also a function of the ABS's ability to collect appropriate data about a group. For instance some groups of interest make up so small a proportion of the total Australian population that even large ABS surveys do not encounter enough of them to produce meaningful statistics concerning them. In other cases, where the distinguishing characteristics of a population group are particularly sensitive (e.g. sexual assault victims) it can be difficult to phrase questions, or ensure privacy, in such a way that the group is fully identified.

LINKING ELEMENTS OF THE SYSTEM

While the area of concern framework is useful, it can suggest that factors affecting wellbeing stay neatly within these defined areas. However, social issues are usually multidimensional, and it is therefore essential to develop links between the different areas of concern. While linking data across all the areas of concern is useful, the value of data from some areas is particularly enhanced by this process. For example, information on employment trends in particular occupation groups (produced by the work area of concern) can be used in conjunction with data about educational attainment and field of study (from the education and training area of concern) to identify future workforce issues. Demographic information about the ageing of the population, and the rate at which this is occurring, is crucial to formulating policy about income support for the elderly, which is also informed by data from the family and community, health and economic resources areas.

Other important links can be made by relating areas of social concern to population groups of interest. Some connections that may be particularly useful are indicated below. Statistics from the unemployed / education cell, may relate to retraining issues; and those from the unemployed / economic resources cell, to the eligibility criteria for unemployment benefits or the relative level of these benefits. In the row for Indigenous people, statistics from the intersection on crime and justice might address imprisonment rates, while those from the culture and leisure intersection might relate to the contribution of Indigenous people to Australian culture. Education and training statistics that relate to data about retirees and older people involve a less obvious connection, possibly describing life long learning.

While not all cells in the matrix below are of specific interest or are represented by current ABS collections or analysis, the layout is useful for identifying gaps in the ABS social statistics program, and suggesting areas that future programs might address. The matrix also stimulates ideas about what statistics could be valuable in informing issues that cut across boundaries.

Selected population groups	Areas of social concern							
	Family & community	Health	Education and training	Work	Economic resources	Housing	Crime and justice	Culture and leisure
Unemployed people			✓	✓	✓	✓	✓	
Retirees					✓			
Indigenous people	✓	✓	✓	✓	✓	✓	✓	✓
Lone parents	✓		✓	✓	✓			✓
Children	✓	✓						
Migrants	✓		✓	✓				✓
Older people	✓	✓			✓	✓		
People with low income		✓	✓	✓	✓	✓	✓	✓
People with disabilities	✓	✓		✓		✓		
Crime victims		✓					✓	

STATISTICAL FRAMEWORKS

Frameworks are a well recognised tool used to support statistical measurement, data analysis and analytical commentary. A primary function of a framework is to 'map' the conceptual terrain surrounding an area of interest. In other words, frameworks can define the scope of inquiry, delineate the important concepts associated with a topic, and organise these into a logical structure. As in the matrix above, each element identified in a statistical framework can represent a specific area about which data is needed. Frameworks can thus be used to direct investigation, or to assess the coverage of statistical programs.

The elements included within a framework can vary widely in nature, depending on the topic of interest. Frameworks may identify and differentiate important ideas (e.g. income, consumption, wealth), important population groups (e.g. employed, unemployed, not in the labour force), key entities and players (e.g. people, organisations), or other prominent factors such as resources, environmental factors, or barriers to participation, to name a few. Frameworks often identify counting units of interest for a particular topic (some common counting units are described over the page).

Frameworks can also show the key relationships, processes or flows that exist between elements. For example, some elements identified in a framework may impact upon others (e.g. resources, lifestyle factors and interventions may all affect the health status of an individual). In some instances flows from one state to another are of interest (e.g. from needing education, through educational activity, to acquiring an educational qualification and gaining suitable employment). In such frameworks, barriers to progression through an ideal flow may be of interest.

Ultimately, the content and form a framework takes will be determined by the nature and scope of the topic, the purpose of the framework, and the perspective of those designing it. In general, successful frameworks share some common attributes, such as being:

- logical in structure;
- comprehensive but concise;
- dynamic and flexible to allow for change; and
- cognisant of other frameworks, classifications and standards.

Above all, frameworks represent an agreed way of thinking about an area of interest, and are therefore valuable in promoting standards, consistency and comparability across data collections and between jurisdictions (e.g. states and countries) and sectors (e.g. public and private).

COUNTING UNITS

A statistical system, at its most fundamental, counts things. Thus, in any statistical investigation, a first step is to decide what to count to most effectively measure the topic of interest. As people are central to issues of wellbeing, the most commonly used counting unit is the person. However, other counting units may be more appropriate in certain instances. For example, many individuals share resources with their family or household, and the family and household counting units are therefore often used in assessing economic wellbeing. Some commonly used counting units are defined below.

Person

People can be classified into a wide range of categories, and then counted to reflect many different areas of interest. For example, they may be counted as males or females, as people of a certain age, as students, employees, job seekers, prisoners, patients, household members or victims of crime, to name a few.

Family

For statistical purposes the ABS defines a family as two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who are usually resident in the same household. The basis of a family is formed by identifying the presence of a couple relationship, lone parent-child relationship or other blood relationship. Some households will, therefore, contain more than one family.

Household

Many resources are shared among people who live together, even if they are not related to one another. A household is defined by the ABS as a group of two or more related or unrelated people who usually reside in the same dwelling, who regard themselves as a household and who make common provision for food or other essentials for living; or a person living in a dwelling who makes provision for his or her own food and other essentials for living, without combining with any other person.

Income unit

An income unit is one person or a group of related persons within a household, whose command over income is assumed to be shared (e.g. a married couple). Membership is based, in part, on the concept of dependency. An income unit is formed for each couple and their dependent children, and for each lone parent and dependent children. Dependent children are persons aged under 15 years, and those aged 15–24 years who are full-time students, live with a parent, guardian or other relative, and do not have a spouse or children of their own living with them. Non-dependent children are regarded as being separate income units.

Other

Other counting units include events (e.g. births, deaths, marriages, visits to museums), transactions (e.g. expenditure), resources (e.g. cash income, household assets such as vehicles, public facilities such as schools or hospitals), or even units of time (e.g. time spent on certain activities, hours worked).

TRANSACTIONS

People are embedded in a web of circumstances that link them to their families and the surrounding community. Individual wellbeing, and the wellbeing of society, are intrinsically affected by this network and the interactions that take place within it. Simply to maintain their own wellbeing or that of family members, people must become involved in transactions with others. Transactions become particularly important when people wish to change their own or their family's wellbeing status. Seen in this way, social transactions are events which change personal and societal wellbeing over time, and are therefore another important element in the system of social statistics. Transactions between community members are also the point at which social capital can be built or diminished. Crime is an example of a transaction that depletes trust, and therefore diminishes social capital; voluntary work is a transaction that increases goodwill between people, and builds social capital.

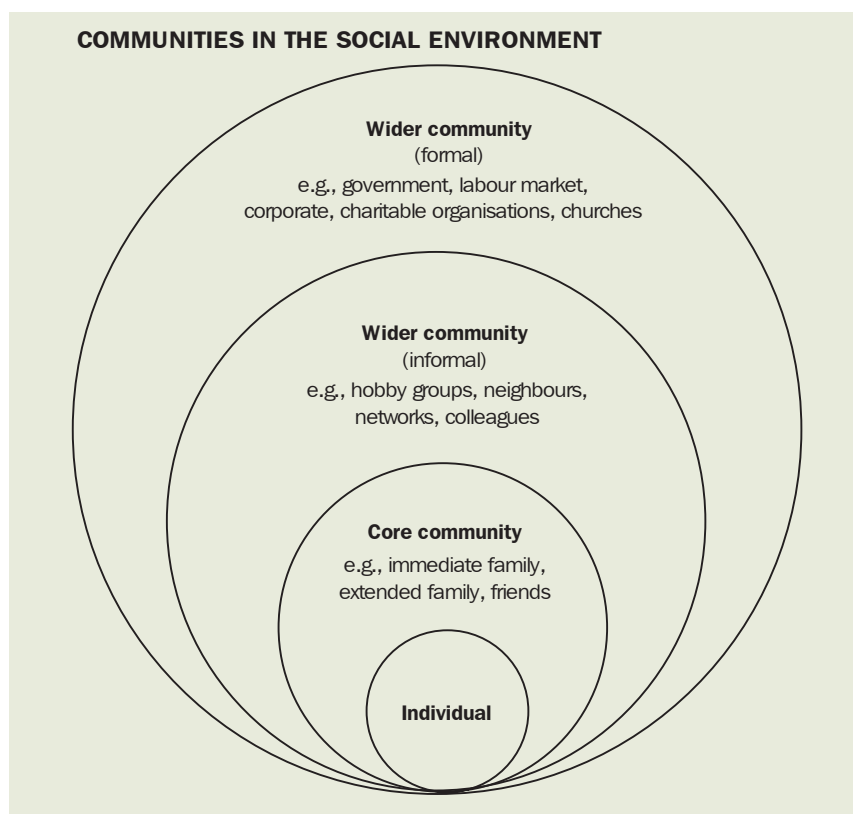
Transactions, or social exchanges, take place from the moment people draw their first breath. Babies cry to be fed, and parents feed them. Children are nurtured and taught social values, and sick or elderly family members are cared for. Governments deliver health and education services. Social groups provide recreation and a sense of belonging, and religious groups provide spiritual guidance and support. The labour market functions around contracts between employers and employees. A model of transactions is particularly useful within a system of social statistics, as it maps the whole of society, acknowledges the interrelatedness that is at the core of society, and directly addresses the dynamic process by which wellbeing is influenced.

Importantly, whether individuals choose to engage in transactions that improve their wellbeing, or are able to fully benefit from transactions they are a part of, will depend on a complex range of circumstances. Some individuals or families may be caught in a cycle that reinforces low socioeconomic status. For example, people who have been out of work for a long period may undergo a loss of self esteem, which may in turn affect their ability to negotiate a job. A difficult or disadvantaged family background might affect a person's ability to acquire skills or to build healthy relationships. These interlocking factors suggest a reduced 'social capability' which adversely affects wellbeing. The complexity inherent in a loss of social capability requires an approach which lays emphasis on connections and interrelations. A transaction model can be an effective way of ensuring all relevant players, links and interdependencies have been covered.

The transaction model used by the ABS for social statistics begins by identifying the social environments in which an individual can become involved in transactions, and describes these in terms of communities. An individual's core community (most usually their immediate family) is the setting for a person's primary and most intimate transactions, and is determined by which people undertake key functions of a core community, such as the provision of love, comradeship, nurture, care and support, economic security, and guidance on commonly held social values. The wider community encompasses transactions and social exchanges which people undertake beyond their immediate circle of family and friends. Once again, what constitutes the wider community for the individual is determined by the functions

TRANSACTIONS *continued*

performed with or for the individual by other people and organisations. For example, key functions of the formal wider community are to provide the individual with employment and a source of income to satisfy his/her consumption needs, and key functions of the informal wider community are to provide a social and communication network that joins the individual to others with similar interests and values.



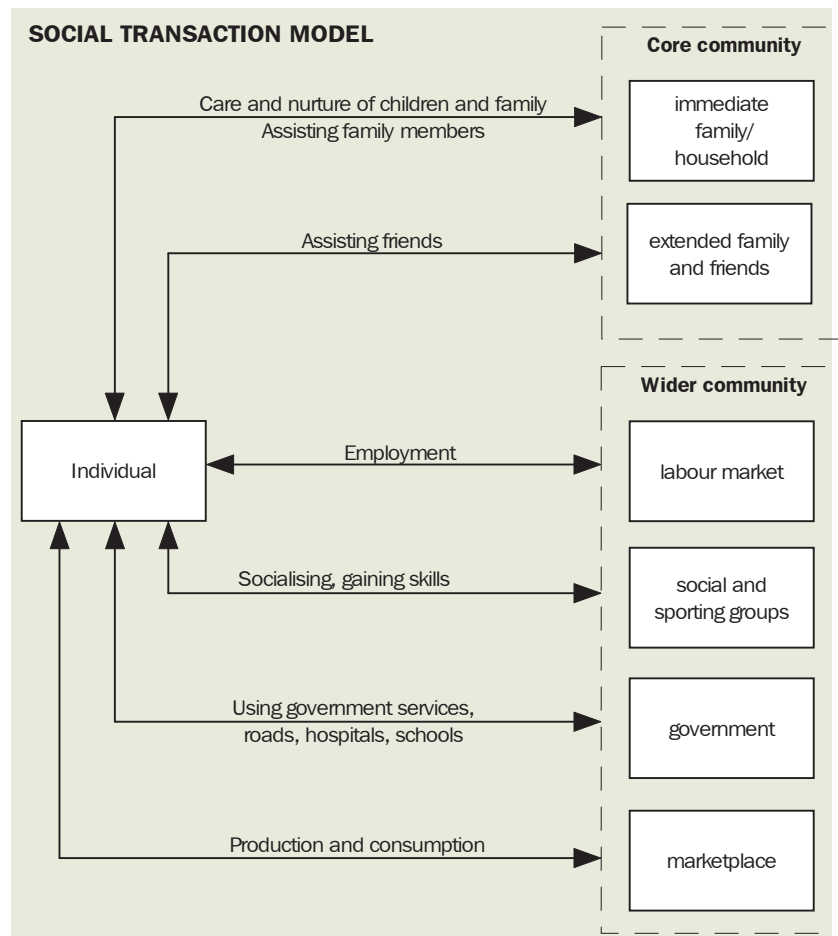
Having defined the social environment affecting individual wellbeing in terms of communities, statistics can be produced on specific transactions to shed light on where and how wellbeing is influenced. Transactions can be between individuals and their core community; individuals and the wider community; or between an individual's core community and the wider community (e.g. where the family negotiates with a government service on behalf of a disabled person within the family). Some examples of transactions are illustrated opposite.

There is a range of types of transactions that can be covered by the transaction model, including: political transactions, whereby individuals and communities can influence political processes and policy decisions; social contracts, whereby governments are charged with the care and support of community members; economic transactions, typically involving the marketplace; and personal transactions, typically involving core community members and characterised by

TRANSACTIONS *continued*

varying degrees of interdependence. Other attributes of transactions can also be important to consider when investigating the implications for wellbeing. These include the:

- direction, frequency, and efficiency of the transaction (e.g. effectiveness of government support services);
- type of service and benefit provided by the transaction;
- barriers to access to the transaction; and
- effect of the transaction (e.g. whether or not wellbeing is improved).



Providers and receivers

To understand the direction of transactions, the ABS identifies the active parties in the transaction, as either providers or receivers. Obviously there will be many types of providers, and receivers (as individuals or as families/households) will have many different levels of wellbeing and be in a range of life cycle stages. The chapter on family and community expands on this description of the transaction model, and all the chapters give some examples of contracts individuals negotiate between themselves and their community in each area of concern, and the transactions and exchanges these contracts support.

SOCIAL CAPITAL

Transactions that promote individual wellbeing are commonplace in our social environment (e.g. parents nurturing children, governments supporting the disadvantaged). However, these kinds of transactions are by no means a given — they are supported by a complex, functioning society that aims to distribute rewards fairly, has infrastructures of law, order and justice, and has a government acting with the support of the people. The amalgam of ideas, assumptions, obligations and values which underpin these infrastructures and allow for a civil society are part of what is now being recognised as 'social capital'.

Capital, in the economic sense, is a widely used term: a community foregoes consumption in order to save; saving is invested in the formation of capital (e.g. plant, machinery, infrastructure, technology, financial assets or liability reduction). By employing factors of production (e.g. labour force skills), further value is created from this capital in the form of goods and services. In other words, a stock of capital subsequently gives rise to flows (of goods, services and income).

In a wider sense, knowledge and ideas can also be seen as a form of capital. For example, the stock of knowledge that governs the manufacture of computer chips is a valuable commodity. Taking this analogy further, positive beliefs and values, for example, that facilitate social cooperation, tie social relations together and regulate or vitalise the social order, are of value to communities. For instance, principles such as altruism, reciprocity and philanthropy motivate people to form social networks of mutual support and obligation, which in turn can bolster wider community cohesion and development. Trust between people in a community also assists in building civil and expansive social relations. That Australian society provides for the transfer of income from the more to the less well off via the tax and social security systems, is a good example of social capital at work. In some societies (e.g. Indigenous cultures) similar social objectives are achieved via attitudes that people hold about extended family obligation.

There are a number of different definitions of social capital currently being debated internationally. In the context of the system of social statistics used by the ABS, social capital refers to the layer of commonly held social values, beliefs and attitudes that lies beneath individual behaviour and encourages transactions that result in greater wellbeing for society. It can be accumulated or diminished, when people interact with each other in families, workplaces, neighbourhoods, local associations and a range of informal and formal meeting places. Thus, over time the stock of social capital will change. For example, trust in the police to protect the community from crime may be a feature of Australia's stock of social capital. However, incidents of police corruption can subtract from that stock, by eroding that trust. Similarly changes can occur in how willing people are to trust in doctors or hospitals or to help their neighbour. Rising awareness among the population of threats to the natural environment and a greater willingness to protect it, represent significant increases in social capital.

SOCIAL CAPITAL *continued*

Although the concept of social capital is a valuable one to use in analysing social wellbeing, it can be difficult to measure. While the transaction model does allow for notions such as the effective nurture of children to be considered part of the social statistics terrain, the concept of social capital is continuing to evolve and therefore is not yet fully integrated into the ABS system of social statistics.

TRANSITIONS

The passage of time immerses people in experiences which add to their accumulated knowledge and change their capacity to meet life challenges. As time passes, people are presented with decisions and choices which have a fundamental bearing on their long term wellbeing. Importantly, if people are to improve their wellbeing, this will usually happen over time, often through a series of transitions. For these reasons, the change in a variable's value over time is often of core interest to data users, and a common analytical aim is to understand reasons for changes in wellbeing over time.

However, although comparing an indicator at one point in time with the same indicator at another point may tell an analyst that a change has occurred, it may not provide insight into why the change occurred. It is often necessary to measure other factors associated with transitions in order to understand causal relationships. For example, life cycle related events can be the catalyst for change in a household's wellbeing status. Thus data can be usefully analysed in relation to life events of significance, e.g. gaining employment, getting married — or its equivalent, having children, seeing children leave home, retiring from work, losing a life time spouse or partner. Life stage analysis can also be crucial to understanding changes in wellbeing at the societal level, for example, a greater emphasis is being placed on support for the elderly as Australia's population is ageing.

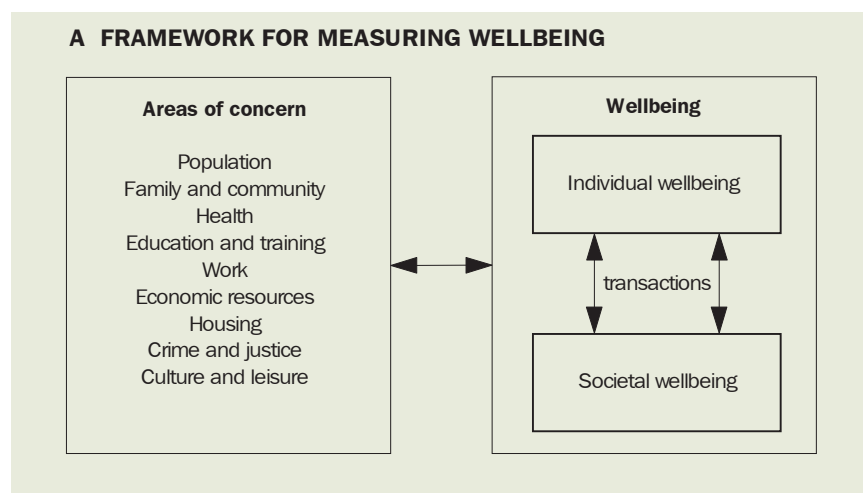
The notion of time is central to many other aspects of wellbeing. For example, the time use framework, discussed in the chapters addressing work and leisure, highlights the time trade-offs that occur between various activities happening within the cycle of minutes and hours in a day.

Social movements also have a fundamental influence on people over time. The movement towards gender equality over recent decades is an example. Far from simply resulting in a few additions to the list of social indicators on the role of women, the true statistical effects of this movement are to be found in the way underlying assumptions in core areas of social statistics, such as family, work, and income, have shifted. The concept of work has been extended to include household work and child minding. The notion of income has been extended to include non-market income and income-in-kind. Family care and labour market based work, rather than being associated with one or other gender, are now viewed as elements in debates about how time related responsibilities are allocated between people, regardless of gender.

CONCLUSION

Social movements will always influence the way social statistics are thought about and collected. A system of social statistics therefore has to be flexible and evolving. As well, it needs to be multifaceted to reflect the nature of the social environment and the complexity of life. As noted at the beginning of this chapter, the system described in this book is one of several complementary systems used to measure Australia's progress and to describe the state of the economy, the environment, and society as a whole. There are necessarily differences between the approaches of these systems. For example, the system of national accounts places monetary values on the economic transactions within its scope, while the social statistics program deals mainly with people, whose behaviour, reactions and emotions, cannot be as readily valued and added together.

There are a great many valuable systems for measuring wellbeing that have been developed nationally and internationally. This book is intended as a guide to the ABS's current system of social statistics and as a starting point for those wishing to understand some of the issues involved. Fundamentally it presents the premise that wellbeing has individual and social dimensions and is influenced via transactions between individuals and society, and by life events, transitions, and other factors that can be grouped within some core areas of concern. This premise is summarised in the following diagram.



The book returns to several core ideas throughout the following chapters. The first is that, when considering a given area of interest, statistical activity should be clearly focused on the implications of that area for the wellbeing of individuals and society. This focus can be fleshed out by considering what prominent issues are being raised in public debate, in the media, and by policy and program developers. Second, the book emphasises the need for precision and clarity in defining the terms and concepts surrounding these social phenomena, so they may be measured, reflected and analysed accurately and usefully. Thus it aims to provide guidance in defining broad and narrow areas of interest, in framework development and in the use of classifications, counting units and other measurement tools.

CONCLUSION *continued*

The social statistics system described in this book aims to meet a wide spectrum of objectives. It supports the provision of summary statistics that allow important aspects of the wellbeing of the nation to be monitored over time at a broad level. It also supports production of more specific statistics that relate to certain target groups, social programs and policy, or that inform specific social issues. Finally it aims to support the provision of statistics that help explain why wellbeing in a given area of concern is at a particular level, why and how that level has changed, and, perhaps more importantly, how it might be changed.

ENDNOTES

1. Reported in, Organisation for Economic Co-operation and Development (OECD), 1973, *List of Social Concerns Common to Most OECD Countries*, Paris
2. Organisation for Economic Co-operation and Development, 1976, *Measuring Social Wellbeing: A progress report on the development of social indicators*, Paris.
3. *ibid*, see endnote 2.
4. Social indicators were first presented as tabulations in the early editions of ABS *Social Indicators* series of publications, referenced below. In subsequent editions the indicators were presented in a social reporting context
5. United Nations, Studies in Methods, Series F, No 49; *Handbook of Social Indicators*: UN Statistical Papers, Series M, No 63; *Social Indicators: Preliminary Guidelines and Illustrative Series*.
6. References to various publications that describe contemporary social indicator frameworks are given below. See also Pearson, M., Arjona, R., and Sherer, P., *Social Indicators: A Proposed Framework and Structure*. Paper presented at the Sienna Group Meeting, 22–24 May, 2000. Maastricht.

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HOW TO READ THIS BOOK

This book presents a method for approaching the measurement of wellbeing. Each chapter is designed to take the reader through steps that will assist in this process. In summary, these steps, and the reasons they are considered important, are:

1. Think about the scope and definition of the area of interest

Wellbeing is centred on concepts such as human happiness and quality of life — complex phenomena, not easily defined or explained. As well, many of the aspects of life that contribute to individual wellbeing, and to the wellbeing of the population as a whole, are interrelated and overlapping. It is important to clarify the scope and meaning of the key concepts involved in measuring wellbeing in an area of concern, to ensure consistency in approach and avoid confusion.

2. Consider the relationship of this area to wellbeing

Micro level issues faced by individuals become social issues when considered on a large scale. Examining the relationship of a specific area to individual wellbeing, and then to the wellbeing of the population as a whole, can be helpful in identifying the important issues for that area.

3. Identify the key social issues

One of the primary roles of statistical agencies is to inform contemporary debate and decision making. Identifying the key social issues for an area ensures that data collection and analysis have a clear direction and are relevant to the debates they need to inform.

4. Identify the key population groups

Social issues often focus on the disadvantage, or risk of disadvantage, faced by particular groups in the population. Community and government response to social issues are also often directed at particular population groups. Identifying the key population groups for an area further clarifies the direction that analysis or data collection may need to take.

5. Develop or make use of conceptual frameworks

In addition to a clear direction, a method for organising and managing data collection or analysis is needed. Conceptual frameworks provide this structure. Because they map the conceptual terrain, they also provide a way of identifying areas that are not covered by existing data holdings or analysis. Importantly, frameworks also provide a basis for ensuring comparability of data across different surveys, between states and countries, and over time.

6. Identify data sources or information needs

Once direction and structure are clear, optimal use can be made of existing data sources. Data can be selected that will answer the specific questions raised as social issues, or be relevant to specific population groups. Alternatively, where data collections need to be developed, the key aims, boundaries and issues of interest will also be clear.

CHAPTER **2** **POPULATION**

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How population relates to wellbeing

A population can be described in terms of the wellbeing of its members and the resources needed to sustain and enhance their wellbeing. Changes in the size, composition or geographic distribution of a population are important because they present a large number of issues concerned with meeting economic and social needs. Population numbers also put pressure on the environment in ways that may not be sustainable over the longer term and potentially threaten living standards. Predicting changes in population size, composition and distribution can help in developing strategies to meet changing needs and to enhance people's wellbeing.

What are some key social issues relating to population?

- Ensuring that political representation and government expenditures are fairly distributed.
- Whether or not continued population growth is sustainable.
- The need to adapt to changes resulting from the ageing of the population.
- Whether the annual number and mix of migrants coming to or leaving Australia is ideal.
- Whether or not pro-birth policies should be adopted.
- Identifying communities with greatest needs for resources.
- Improving outcomes for the Indigenous population and other disadvantaged groups.

What are the key definitional challenges?

There are often fine issues of detail associated with defining who should be included or excluded from any population count. Issues include the choice of physical boundaries that define communities of interest, and, because people do not remain stationary, the selection of criteria to be used to say who belongs to a particular population. Examples of these choices include: those present at a point in time versus usual residents; where people live versus where they work; the criteria that best distinguishes between people living in more or less accessible areas.

What are the main measurement issues?

Censuses of the Australian population will be incorrect if people are missed, so ensuring the enumeration of all people no matter where they live involves a great deal of planning. The magnitude of any undercounts need to be estimated so that counts can be suitably adjusted. Post census population estimates and population projections demand data for each of the components of population change, namely, births, deaths and international migration, and, for regions within Australia, additional information on internal migration. Obtaining good quality data for some components, especially internal migration, is an ongoing issue of concern. Because of inconsistencies in the way in which people identify their Indigenous status and because of problems in identifying people of Indigenous origin in birth and death registration systems, obtaining accurate measures of the size of the Indigenous population presents an ongoing challenge.

DEFINING POPULATION

The term 'population' is most commonly used to refer to the total number of inhabitants of a place, be it a town, a region, or a country. However, it is more generally used to refer to the total number of units (not necessarily people) that make up, or belong to, a group of interest. Thus, for example, it may refer to the total number of men or women in Australia, the number of children in a particular State or Territory, or even the total number of children attending a particular school. There are numerous ways in which people can be classified and counted to form population groups. They can be counted according to their country of birth, employment status, occupation, income, health status, their attitudes to issues, their experience of particular life events and so on, or indeed, on the basis of any combination of attributes that may be of interest (e.g. older women in rural areas who cannot speak English well). The choice simply depends on the issue of concern and many such choices are described in the subsequent chapters of this book.

There are, nonetheless, many social and economic issues that specifically demand regular information about the overall size, growth, structure and distribution of Australia's total population. Similar information is also needed for the population of particular administrative areas, such as the States and Territories, and the population of particular groups, most notably Aboriginal and Torres Strait Islander (Indigenous) people. In addition, information on the size, structure, and distribution of the population is needed for the practical matter of conducting social surveys both in terms of determining their sample sizes and in benchmarking their results in order to obtain aggregates that relate to actual numbers of people.

It is for these reasons that 'population' has been identified as an area of concern in its own right. The focus is on information that describes the dynamics of population change and, from the knowledge gained, providing statistics about the current and likely future size of the population. Changes in the demographic structure of the population and in its geographic distribution are also key aspects of this area of concern.

The official Australian population

The official measure of the population of Australia is based on the concept of residence. It refers to all people, regardless of nationality or citizenship, who usually live in Australia, with the exception of foreign diplomatic personnel and their families. It includes usual residents who are overseas for less than 12 months. It excludes overseas visitors who are in Australia for less than 12 months.

In terms of geography, the official population relates to the Commonwealth of Australia which includes the territories of Christmas and Cocos (Keeling) Islands but excludes external territories such as Norfolk Island and the Australian Antarctic Territory.

Size and growth *continued*

The size of a population, which simply refers to the number of units within the group, can be determined by taking a census. However, it is also vital to know whether the population is growing in number or not, whether the rate of change is fast or slow, and what the likely size of the population will be at various times in the future. Information about growth is greatly facilitated by having data on births, deaths and migration. Each of these components may themselves be monitored over time and analysed to help predict future events.

Structure

By tradition, statistics on population structure largely revolve around descriptions of the age and sex composition of the population. These descriptions involve the use of age-sex pyramids and summary indicators such as sex ratios and median ages. These particular dimensions are useful from a planning perspective because many human needs are associated with these characteristics. Schools and age care services are obvious examples of needs associated with age. However, both age and sex are also important structural variables used in preparing population estimates and projections. This is because the events associated with changes in population size (births, deaths and migration) are also closely associated with people's age and sex. It is by using age-sex specific rates of fertility, mortality and migration that more refined estimates of likely future trends in population growth and likely future population sizes can be provided.

There are of course many other dimensions by which the structure of a population can be defined. These include race, ethnicity, country of birth, languages spoken and religious affiliation, all of which help to describe the different cultural backgrounds of members of the population. Certainly information about the distribution of people across such groups can be provided in great detail whenever a census is conducted. However, while there are always some demands for more frequent estimates of the size of various groups than is available from censuses, such estimates are only produced where the demands for such information are high.

Geographic distribution

The distribution of the population between locations, be they cities, towns or rural areas, accessible and remote areas, or particular administrative areas, defines the spatial dimension in which human needs must be met. Population statistics are concerned with describing the size of the population of each place and the flows of people between places that influence their growth or decline. Data on the number of people for almost any area of choice (based on aggregates of census collection districts) can be obtained from each national Population Census. However, the geographic areas for which intercensal estimates and population projections are produced as a matter of course are limited for reasons related to data quality and the need to be pragmatic in terms of expected usage of the estimates.

POPULATION AND WELLBEING

'Population, when unchecked, increases in a geometrical ratio. Subsistence only increases in an arithmetical ratio.'

Thomas Malthus, *Essay on Principle of Population* (1798)¹

As can be seen from the words of Malthus, written over two centuries ago, people have long held concerns about the availability of global resources to meet the needs of a growing global population. Malthus was particularly concerned with potential food shortages arising from population growth, and this issue continues to be important today. However, the concern in modern times is also expressed in terms of other resources, such as fresh water, forests and fossil fuels, which under the pressure of population growth have come to be recognised as being in limited supply and in need of careful management if humans are to prosper.

Even within nations and regions in which there may be an abundance of resources, many social, political and economic problems have demographic change as one of their underlying causes or concerns. This is because population growth, and changes in structure and distribution, set up new pressures for providing resources needed to maintain human wellbeing. The extent to which competing needs for resources cannot be suitably satisfied impacts on individual wellbeing. The extent to which population pressure impacts on the environment and its life support systems also impacts on wellbeing.

For governments, businesses and others involved in providing resources to population groups, changes in the size, composition or geographic distribution of the groups are important because they present a large number of management issues concerned with meeting the groups' various resource needs. Predicting changes in population size and considering future needs and possibilities for meeting those needs can help with the development of strategies to enhance the wellbeing of individuals, the community at large, and the environment on which people depend.

There are other, often less tangible, matters that arise as a consequence of changes in population size and structure that can impact on wellbeing. This is a reflection of people's capacity to adapt to change, especially if change occurs at a rapid pace. For example, changes in the size of a town or region, either up or down, often driven by economic forces, can engender a sense of optimism or pessimism about the future and so affect people's sense of wellbeing. Similarly, changes in the composition of the population, in terms of the balance between men and women, between children, adults and elderly people, and between people with different cultural backgrounds, or different value systems, can lead to anxiety or tension impacting on the cohesion of society.

POPULATION ISSUES

There is widespread interest in information about the size, composition and distribution of Australia's population and how these may change over time. Governments have an obvious interest because of their obligation to enhance the wellbeing of all citizens. Businesses and other organisations have interests in knowing the likely demand for the various goods and services they provide. A common concern for users of population statistics relates to the resource implications associated with meeting people's needs and how increasing demands for resources associated with population growth can be managed.

Recognition by government

The notion of having a fair basis for political representation in our Houses of Parliament underpins our democracy and is part of the social compact that Australian citizens have with government. This compact, written into federal law as the *Commonwealth Electoral Act 1918*, determines that the number of representatives from each State (and Territory) to sit in the House of Representatives must be set relative to the number of people in each State (and Territory). As a consequence, up-to-date population estimates are needed to maintain the representation standards. Indeed, Federal legislation obliges the ABS to produce quarterly estimates of the population in each State and Territory (see *Sub-section 9 of the Census and Statistics Act 1905*).

Having a fair basis for allocating public expenditures is also of critical importance and demands the provision of up-to-date population statistics for areas administered by different levels of government. Population estimates are specifically used to help determine the annual allocation of Commonwealth funds for State governments (*A new tax system (Commonwealth-State Financial Arrangements) Act 1994*) and for local governments (*Local Government (Financial Assistance) Act 1995*).

Sustainability of a growing population

The growth of the world's human population and its increasing demand for limited global resources is a key issue for citizens and governments throughout the world. This is coupled with evidence that many of the life support systems that make-up our natural environment are being degraded by human activity and that continued population growth will add to the pressure experienced by these systems. These issues have come to be regarded as important no matter where people live, including countries with small populations, because all people influence, and ultimately depend on, the quality of the environment (its climate, soils, water, bio-diversity) for their wellbeing.

Of course, each place in the world also has its own unique set of issues related to population pressure. In Australia, these concerns have been expressed in periodic political debates about the optimal size of the population. Some of the major issues in these debates relate to Australia's poor endowment of fertile soils and the limited supply of fresh water over much of the landscape. Estimates of 'carrying capacity' have varied considerably, ranging from hundreds of millions to a population level lower than the current one.² These variations depend on the criteria being used to define carrying capacity (ranging from food production to ecological degradation),

Sustainability of a growing population *continued*

the standard of living assumed, and on speculations that future technologies and other human endeavours may serve to extend the availability of resources. Because of the complexity of the issue and the diversity of views, no firm conclusions have been reached.

Ageing of the population

Of increasing concern is the change in the age profile of the population which has seen a falling proportion of younger people and a growing proportion of older people. Projections, based on past and expected future trends in fertility, mortality, and net migration, show that with all plausible assumptions these trends will continue. Comparisons with other countries show that the ageing trend is a common experience among similarly developed countries. The consequences of the changes are attracting increasing debate, with some scenarios suggesting a need for action to help maintain living standards. For example, because the later stages of life have been associated with low income and high demands for health and community care, the adequacy of government budgets (under established tax regimes) to support older people has become a major issue of concern. Pro-birth and pro-immigration policies have been considered as possibilities to reduce the ageing process. Other social responses to perceived fiscal problems from aged support programs have been to encourage people to provide for themselves in their retirement through compulsory superannuation and other saving strategies.

International migration

Despite ups and downs in numbers of migrants coming to Australia, the migration of people from other countries has long been supported and encouraged by Australian governments. Support for migration has generally been associated with the desire to attract skilled labour to help Australia's economic development and to increase the size of national markets but there have been other interests as well. For example, as made popular by the slogan 'populate or perish', migration was encouraged during the twentieth century to help secure Australia from threats of invasion. A feature of patterns of immigration to Australia over more recent decades has been the increasing diversity of countries of origin from which migrants have come. At the global level there have also been large increases in numbers of people seeking to move to more stable, well off countries, like Australia, because of economic and political difficulties in their own countries. Increases in levels of illegal immigrants have been one of the consequences of this trend.

There are a number of issues for which data that monitors the intake of migrants is important. One concerns the contribution of immigration to the overall size and structure of the population which, as previously discussed, relates to the debate on the sustainability of population growth. Another issue, often raised during periods of economic recession, relates to fears that immigration may set up extra competition for limited employment opportunities. Yet another concern relates to the diverse backgrounds from which people come. Cultural diversity is celebrated in Australia but, at the same time, is challenged by some groups who feel uncomfortable in sharing their future with people who have competing needs for limited resources, especially when some of those people have different looks, languages, beliefs and

International migration *continued*

values. Statistical information that describes the flow of migration and its consequences for living standards is vital to informing public policy debates and shaping future immigration policies.

Fertility levels

Monitoring trends in fertility is important because it is a major factor influencing rates of population growth and because it is the major factor affecting changes in the age composition of the population. In Australia, as in many other developed countries, there has been increasing interest in ways to arrest the on-going decline in fertility rates which have fallen to levels lower than that needed to replace the population and to family sizes lower than young women say they aspire to have.³ Information that contributes to our understanding of the biological, social and economic factors that influence the numbers of children born is needed to support possible public policy options.

Population distribution

Resources need to be available to people according to the places in which they live. For resources over which governments have responsibilities, such as roads, electric power, telecommunication, schools, hospitals, community service centres, and so on, information on population numbers is often vital to planning processes associated with the delivery and maintenance of such services. Businesses also have demands for such information in providing a wide range of goods and services. While population numbers are vital to planning processes so too is information about the relative wellbeing of people in those areas. More detailed information about the circumstances of people living in particular areas, their demographic composition, whether the population is growing or declining, whether the community is relatively affluent or not, helps with targeting and prioritising efforts to provide goods and services.

City growth

The issues associated with population size and composition differ according to places of interest, be they global, national, or local. Many issues associated with population pressure are most evident in cities which, by definition, refer to places with high concentrations of large numbers of people. As in many cities throughout the world the growth of Australia's cities has been associated with problems such as traffic congestion, urban sprawl, overcrowding, air and noise pollution, beach pollution from drainage runoffs and sewerage discharge, securing adequate supplies of water, and difficulties of waste disposal. Of course the solution to many of these problems may lie in better planning and regulation of the many human activities that contribute to such problems rather than controlling population size. Information that describes the numbers of people affected by various problems, and supports the analysis of whether growth is sustainable in terms of available infrastructures, is vital to considering various development strategies.

FRAMEWORKS

Counts, estimates and projections

Organising a complete count of all members of a population at a given point in time is an essential step to accurately measuring its size. This is one of the functions of conducting a census. Modern Australian population censuses, conducted at five yearly intervals, also provide a wide range of demographic, social and economic data about the entire population and about populations living in separate areas within Australia down to fine levels of geographic detail. It is from this base, together with information from other sources which measure changes in population size, that the ABS produces official population estimates relating to other points in time and so provides a regular stream of up-to-date statistical information about the overall size, structure and distribution of the population. In terms of geographic coverage these estimates relate to the areas administered by the three levels of government: Commonwealth, State and Local. They include annual (mid-year and end of quarter) estimates of the population of Australia and each of the States and Territories, and annual mid-year (i.e. 30 June) estimates of the population of areas that correspond with Local Government Areas (namely Statistical Local Areas). It is from the basis of these population estimates that projections of the population are produced. Those published include projections for Australia, the States and Territories and capital city/balance of state areas. The ABS also produces, with users, projections for smaller geographical areas.

The demographic model

A simple yet practical stock/flow model (sometimes referred to as a balancing equation) serves to provide the conceptual foundation for much of the work involved in producing official population estimates and projections. The balancing equation, shown below, informs that after an initial estimate of a population has been made, a subsequent estimate of the size of the population can be provided by using information about numbers of all people gained and lost from the population as a result of births, deaths and movements of people, as immigrants and emigrants, to and from other areas.

$$P_1 = P_0 + B - D + I - E$$

Where

P_0 = Population at the beginning

P_1 = Population at the end of a period

B = number of births during period

D = number of deaths during period

I = number of immigrants who arrived during period, and

E = number of emigrants who left during the period.

The demographic model *continued*

The terms immigrants and emigrants usually refer to people who move to and from a country and so are most apt in the context of producing national level population estimates. However, they are also used in the balancing equation in a conceptual sense to refer to people who move to and from any area that is the focus of interest. Thus for a given area within Australia, such as a State or Territory, they include people moving to and from other parts of the country. As such the model takes into account both international and internal migration as components of population growth.

Demographic techniques

Clearly where regular high quality information is available about each of the components of population growth (namely births, deaths and migrations) there is a basis for continuously updating a census count for points in time up until a new set of census data becomes available. Furthermore, by studying the various components of growth, in terms of their rate of change over time (i.e. trends in fertility, mortality, overseas and internal migration), how those trends differ among population sub-groups and the factors that affect those trends, it becomes possible to propose how those components might change into the future and so produce scientifically based population projections. This science, known as demography, provides the logic for producing population estimates and projections for particular geographic areas. It also provides an array of concepts and methods such as cohort analysis, life tables, and hazard models, that support the analysis of demographic trends.

A particular technique that builds on the foundation of the balancing equation but simultaneously uses information about the sex and age of the people involved in each element of the equation, known as the cohort component method of population estimation, is used extensively to produce population estimates and projections. However, various other techniques are also used, especially in instances where the information needed to support the cohort component method is not available or of suitable quality. For example, information on internal migration within States is often not directly available.

Counting rules

There are always various governing rules that determine who should be included or excluded from any population count. These rules typically involve criteria on who belongs to a population in terms of their residency status (whether they usually live within an area or not) but may also include other criteria based on an individual's personal characteristics. For instance, by international convention, foreign diplomats and their families are always excluded from census counts due to their foreign allegiance.

Currently, in Australia, there are no other criteria based on a person's characteristics, such as citizenship or race, to exclude them from census counts or official population estimates. This has not always been the case. Until 1967, section 127 of the Constitution required the exclusion of some Aboriginal people – 'In reckoning the numbers of the people of the Commonwealth or of a State or other part of the Commonwealth, Aboriginal natives shall not be counted'. This was interpreted as requiring the exclusion of people with more than 50% Aboriginal blood. To enable

Counting rules *continued*

this exclusion, census questions were used to identify 'half-castes' and 'full-bloods' and the census was not undertaken in the remote areas that were only inhabited by Aboriginal people.

Place of enumeration counts

It is for practical reasons that population censuses taken in Australia count people according to their actual place of residence on the night of the census. This maximises the count ensuring that everyone will be counted somewhere. However, it is known that the counts for particular areas can be substantially affected by this approach. Holiday areas, along the coast or around the ski slopes, are examples of areas which can have large seasonal differences in their population associated with short term flocking of visitors, including overseas visitors, to and from those areas. A consequence of such movements is that the size of a population of a given area can be influenced by the time of year the count is undertaken. However, in order to increase the likelihood that people are counted at their usual place of residence, recent censuses (conducted on a Tuesday night in August since 1991) have been scheduled to avoid conflict with school holidays and other periods with high levels of population mobility.

Counts of usual residents

The disadvantages of place of enumeration counts for any area can be overcome by providing counts of people who usually live within an area. It is on this basis that official population estimates are provided and (notwithstanding some differences in operational definitions) on which information from all other ABS social surveys are produced.

Producing such counts from the census, which provides the starting point for producing official population estimates, is enabled by asking people to give their usual place of residence on the census form and then coding them accordingly. The criteria used to determine a usual place of residence in the census is the address at which the person has lived, or intends to live, for a total of six months or more in the census year. If a person is not a usual resident of the place at which they were counted on census night they are deemed to be a visitor, and, if their usual address was in Australia their address information is used to determine the area (i.e. the Statistical Local Area (SLA) and State or Territory) in which they usually live. Information about the population that usually lives within a given area can then be generated. Overseas visitors are excluded from such counts.

The steps just described are those used to produce census based profiles of usual residents living in various geographic areas. However, because the census does not obtain information about usual residents who were temporarily overseas at the time of the census, additional information is needed to obtain complete estimates of usual residents. In practice this data is obtained from international movement statistics and refers to those Australian residents who were overseas on census night and returned in the twelve month period subsequent to the census date.

Service population estimates

The balance of usefulness between the counts just described is not entirely in the direction of a usual resident count. A measure of the number of people in an area at a particular time may provide an indication of the pressure on services and infrastructure as well as on the demand for accommodation and related tourism and travel needs. The usefulness of place of enumeration counts from the census depends on the coincidence of the census date with the peak service demand in the area of interest. The census data may not be optimal in this regard as the date of the census is chosen to minimise the effect of population movement. Usual resident counts are, therefore, often taken as a starting point for obtaining service population estimates.

Interest in having population estimates that reflect peak demand for services arises from many different service providers. These include those concerned with tourism, water supply, sport and recreation, traffic volume management, bush fire prevention, policing, and so on. Clearly the specific demands for where and when people should be counted can vary with each service. Thus there can be interest in estimates compiled according to where people spend their time during the day (at work or undertaking other activities) as opposed to where they live, and population estimates that relate to particular days of the week or particular times in the year. The population census collects information about the location of people's places of work which, for the areas in which such information has been coded, has helped to meet some of these needs.

Estimated Resident Populations (ERPs)

Producing official population estimates involves a number of steps in addition to those already described of converting the five yearly census counts from a place of enumeration to a place of usual residence basis. These include adjusting the census counts for census under-enumeration, and, where the census date falls on a date other than 30 June, making an adjustment so that the estimate applies to 30 June. Post-censal estimates for Australia and the States and Territories are then calculated by the cohort component method, using the 30 June census year estimate and flow data on births, deaths and overseas and interstate migration. The estimates given by these procedures are formally known as 'Estimated Resident Populations' (ERPs).

The procedures for producing post-censal ERPs differ according to geographic level because they depend on the availability of suitable data. For instance, in regard to migration at the national level, only data on international migration is needed while for lower levels of geography additional data on internal migration is also needed. The data on international migration is obtained from records of international movements of persons which distinguish between permanent, long term and short term arrivals and departures to and from each State and Territory. At the State/Territory level, internal migration data is primarily modelled from Medicare records. Again, at the Statistical Local Area (SLA) level there is no direct data available about overseas or internal migration so various estimation techniques are used.

Post censal Australia/State estimates

To estimate the Australian population at 30 June one year after a census year, all births occurring during the preceding 12 months are added to the census year ERP, all deaths are deducted; the people leaving the country both long term (12 months or more) and permanently are also deducted; and the people arriving both long term and permanently in the country from overseas are added. Short term movements (arrivals and departures) for less than 12 months are excluded from population estimates. Taking into account interstate migration similar procedures are used at the State/Territory level and the procedures are repeated for each subsequent year.

Post censal SLA estimates

For post-censal years, the absence of migration data at the SLA level means that it is not possible to estimate SLA populations directly by taking into account natural increase and net migration. Instead, ERPs are calculated using a mathematical model. Local knowledge, including that advised by local governments, may be used to adjust the outcome of the model for a particular SLA. In the mathematical model a relationship is established between changes in population and changes in other indicators over the period between the two most recent censuses.

The choice of indicators varies across the States and Territories, depending on availability, and includes dwelling approvals, electricity connections, Medicare enrolments and drivers licenses. Changes in these indicators are then used to estimate changes in the population of each area since the last census. The choice of indicators also varies across SLAs depending on aspects such as whether the SLA is urban or rural, its population is growing or declining, and whether the area has a high or low proportion of houses or medium and high density dwellings.

Population projections

Population projections aim to show how the size, structure and distribution of the population may change into the future. The ABS publishes a new set of integrated population projections, relating to Australia, the States and Territories, and capital city/balance of state areas every two to three years. These projections involve a number of scenarios about likely outcomes with each scenario being based on a different combination of assumptions about future changes in fertility, mortality, and overseas and internal migration. The assumptions are based on a detailed analysis of recent past experience at the three geographic levels and takes into account likely trends observed from the experience of other countries and the views of relevant government agencies and experts.

As with population estimates the projections for these areas are produced using the cohort-component method which begins with a base population for each sex by single years of age and advances it year by year by applying assumptions about future mortality and migration. Assumed age-specific fertility rates are applied to the female populations of child-bearing ages to provide the new cohort of births. This procedure is repeated for each year in the projection period for each State and Territory and for Australia. It is also repeated to obtain capital city/balance of State projections for each State and Territory. The resulting population projections for each year for the States and Territories, by sex and single years of age are adjusted to sum to the Australian results.

Population projections continued

Of course the number of assumptions that might be made about the future are numerous. Reference to a recent set of ABS projections, those produced on the basis of 1999 population estimates showing population change to the year 2101 for Australia and 2051 for the States and Territories, helps to show how these are managed. At the Australian level, two assumptions about fertility are used (high and low), one about mortality, and three about net overseas migration (high, medium and low). Within each of these six combinations, three further State/Territory assumptions about the volume of internal migration are made (large, medium and small net gains and losses for States/Territories). The combinations of these assumptions give rise to eighteen possible outcomes. While summary information is given for all eighteen, only three outcomes are selected for detailed analysis. These are referred to as being high, medium and low variants. Each of the series is available by sex and age group. Derived 'indicator' projections such as the median age of the population, the proportion aged 65 years and over, and the proportion under 15 years of age, are also provided for selected years.

Population forecasts

According to their particular administrative and planning needs, various government agencies also produce population projections of their own, sometimes using the ABS to prepare them. Often referred to as forecasts, rather than projections, because they aim to predict populations by only using one set of assumptions and more commonly have a short term outlook, these include national level forecasts of the total population produced by various commonwealth government agencies such as the Treasury and the Department of Immigration and Multicultural Affairs, and local area forecasts produced by various State and Territory government planning agencies. These typically use similar projection techniques to those described above and are usually based on ABS population estimates.

Small area population projections

ABS small area population projections or forecasts (for local government areas, postcode areas and the like) that are produced for users with their involvement in making assumptions about change, typically draw on knowledge of local area planning decisions (sometimes indicated by data on building approvals or expected releases of land) to help predict likely future changes. State government agencies with access to development plans are clearly best placed to contribute their knowledge about possible future impacts in particular areas and so often produce their own small area projections. The need for local area knowledge reflects the fact that local planning decisions can have a greater influence on population growth than trends in mortality, fertility and migration on which projections for broader geographical areas are based.

Defining geographical areas

The Australian Standard Geographical Classification (ASGC) has been developed by the ABS to identify different geographic areas for which statistical information may be provided to suit many different needs. The classification actually embodies a number



The areas have been defined according to a number of criteria which are different for each unit in the classification. These criteria variously include; the official boundaries of local and State and Territory governments; streets, rivers and visible landmarks along with numbers of dwellings within an area (usually about 200 in urban areas) to define CDs; the population density of CDs and their location relative to similar CDs to define urban centres, rural localities, and remaining rural balance areas; road distance from major service centres in order to define remote and less remote areas; and so on. More information on the classification can be obtained from the *Australian Standard Geographical Classification* (Cat. no. 1216.0) and *Statistical Geography Vol. 2: Census Geographic Areas* (Cat. no. 2905.0).

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Defining geographical areas *continued*

building block the more flexible the combinations. Currently the smallest unit, which can be aggregated in various ways to define larger areas of interest, is the CD. However, opportunities are emerging through geocoding and Geographic Information System technologies to identify the precise location of dwellings, or other statistical units, and so offer much greater flexibility in combining information to suit various needs.

Describing multicultural Australia

An important dimension of the composition of a population, often taken to belong to the field of population statistics, but which is of interest to each of the other areas of concern described in this book, relates to the diverse ethnic and cultural backgrounds of the population. It is due to its association with immigration, as one of the major components of population growth for much of Australia's modern history, that the link between cultural diversity and the other topics discussed in this chapter arises. Another link relates to the task of providing post-censal estimates and projections for groups of interest (such as the number of people in Australia who were born in different countries) as this also involves the use of demographic techniques similar to those used to provide population estimates and projections for the total population.

Cultural diversity can be recognised through a large number of attributes. These include the country of birth of the person, their year of arrival in Australia, the country in which their mother or father was born, whether of Indigenous origin or not, or more generally their ancestry. Other dimensions of cultural diversity include differences in religious affiliation and in the use of a range of local and foreign languages. As well as being able to describe the sizes of the populations that make up various groups and how through further immigration their numbers may be changing, there is interest in the wellbeing of groups with different backgrounds. One area of interest relates to the fact that some groups experience disadvantage when seeking to obtain access to life opportunities including employment, education and those related to government and community programs.

It is in response to a widely recognised need for a nationally consistent framework for the collection and dissemination of data on cultural and language diversity that the ABS has developed standards for statistics relating to many of these attributes. The 'Standards for Statistics on Cultural and Language Diversity', as they are formally known, often built up from longstanding procedures, were endorsed by the Council of Ministers of Immigration and Multicultural Affairs (COMIMA) in April 1999. These include recommended questions, classifications, coding structures and output categories for use in interview-based and self-enumerated data collections.

Indigenous population

The size and geographic distribution of the Aboriginal and Torres Strait Islander population are significant determinants of the distribution of government resources and the provision of services. Population estimates and projections are also essential components to the calculation of key Indigenous social statistics needed to monitor progress in addressing changes in health status or social and economic disadvantage

Indigenous population *continued*

over time. It is necessary, therefore, to identify this population in a wide range of data collections, particularly administrative systems. Classifying people according to their origin can be a sensitive issue. People can have mixed parentage or mixed ancestries so there can be ambiguities (as seen by the person themselves or by others) associated with whether a person belongs with one group or another.

According to the most widely adopted definition of Aboriginal or Torres Strait Islander people (the Commonwealth working definition):

'An Aboriginal or Torres Strait Islander is a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community in which he or she lives. (DAA, 1981).'⁴

This definition, widely accepted by Commonwealth and other government agencies has three elements, descent, self identification and community acceptance. The choice of which one or which combination of these elements to use in collecting information about Indigenous people can affect the resulting statistics. In practice, it is not generally feasible to collect information on the community acceptance part of this definition and, therefore, questions on Indigenous Status relate to descent and identification only. The ABS standard question is as follows.

<p>Is the person of Aboriginal or Torres Strait Islander origin?</p> <ul style="list-style-type: none"> For persons of both Aboriginal and Torres Strait Islander origin mark both 'Yes' boxes. 	<p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes, Aboriginal</p> <p><input type="checkbox"/> Yes, Torres Strait Islander</p>
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Full details of the standard concepts, questions and classification used to produce statistics on indigenous status are provided in *Standards for Statistics on Cultural and Language Diversity* (Cat. no. 1289.0). These standard concepts are being used, or actively promoted for use, in a wide range of statistical and administrative data collections. This includes those relating to births and deaths to help support the production of Indigenous birth and death rates as well as population estimates and projections by adopting some of the methods used for producing estimates and projections for the total population of Australia, as described above. To date, largely because of the poor quality of available data, the ABS has used other means to produce population estimates and projections of the Indigenous population which are referred to as being 'experimental'. The experimental estimates for 1991 to 1996 used as their starting point the place of usual residence census count as at 6 August 1996, adjusted for non-response to the Aboriginal/Torres Strait Islander origin question in the census, net census undercount and registered Indigenous births. These 6 August 1996 Indigenous estimates were then 'survived' back to 30 June 1996 and then back to 30 June 1991 using life tables. This method is known as the reverse survival method and assumed zero net internal migration and zero overseas migration.

Indigenous population continued

While the ASGC, described above, provides a basis for obtaining information about Indigenous people according to various geographical areas, the area classifications available in the ASGC have not always been ideal for obtaining area based statistics relating to Indigenous people. This is partly because the geographical distribution of Indigenous people is quite different from the total population on which the construction of CDs are based: many CDs have no, or very few, Indigenous people while others have large numbers. To help maximise the use of available small area data in a way that also accords with commonly referred to localities and administrative regions relating to the Indigenous population, the ABS has developed a separate geographical classification for Indigenous statistics that was first used to disseminate data from the 1996 Census. Like the ASGC, the Indigenous area classification is hierarchical and built on CDs. It consists of three levels: Indigenous Locations (which almost always have a population of at least 80 Indigenous people), Indigenous Areas and Aboriginal and Torres Strait Islander Commission regions. As with the areas presented in the ASGC these areas can also be aggregated to provide statistics according to user requirements.

MEASUREMENT ISSUES

Completeness of census counts

Censuses can miss people, or even count people more than once, and while many procedures are used to help ensure such problems are minimised some miscounting is inevitable. A method used to assess the completeness of census counts, and to inform the extent to which any adjustments should be made, is a post-enumeration survey. These surveys, conducted immediately after the census, determine whether or not people were properly enumerated and serve to measure the proportions of people (by age, sex, state of residence) who were missed or double counted. Along with the adjustments to census counts made so that they refer to usual residents of Australia, the information from the post enumeration survey is used to adjust census counts to produce official census year population estimates. Australia has typically achieved high coverage in its population censuses with under-enumeration rates of less than 2% in recent censuses.⁵

Net overseas migration and category jumping

Although Australia maintains a good system of recording the movements of people to and from its borders, obtaining accurate information about net gains (or losses) of people within any period, is affected by the reliability of the information collected from travellers in regard to their intended duration of stay, whether 'permanent', 'long term' or 'short term'. These distinctions are important because short term arrivals and departures (those of less than 12 months duration) are omitted when producing population estimates: only people moving on a permanent or long-term basis are taken into account. One of the major issues associated with the use of this information relates to the discordance between the intended duration of stay and the actual period of stay among some travellers.

Net overseas migration and category jumping *continued*

Category jumping is the term used to describe changes in travel intentions from short-term to permanent/long-term or vice versa. The extent of the shifts between categories and their net effect in reducing or increasing the numbers of people who should have been included in population estimates can be estimated by comparing information on travel period intentions with subsequent data on actual outcomes. For example, in regard to Australian residents departing to an overseas destination in a given reference quarter, it is possible to retrospectively look at the numbers who did and did not return within 12 months of their departure date and compare this with the numbers of people who said they would (or would not) return within 12 months. For any quarter the difference between those who said they would return within 12 months and those who did return within 12 months gives the extent of category jumping. The extent of category jumping among overseas visitors to Australia can be similarly determined.

Internal migration

A major component of population change for small areas arises due to internal migration, yet aside from statistics collected from the census such data is difficult to obtain, especially below the State/Territory level. For the purpose of producing intercensal population estimates the ABS has been using Medicare transfers (members of Medicare who register their change of address) as the key source of data about the numbers of people who move between the States and Territories.

While Medicare theoretically covers all Australian usual residents as well as those non-Australian residents granted temporary registration, there are a range of Australian usual residents who do not access the Medicare system, primarily due to access to alternative health services. Such people include some Indigenous persons, defence force personnel, prisoners and persons eligible for Department of Veterans' Affairs Health Services. Furthermore, there are also those individuals who simply do not register their change of address with Medicare when they move, even though they continue to access the Medicare system. As such, Medicare data on interstate movers have a degree of under coverage and various modelling techniques must be used to compensate for these problems.

Reconciling intercensal estimates

Taking the census date population estimates from one census and adding to it the net population gains that arise from the various components of growth, namely births, deaths and migrations (as described in the balancing equation) to give post censal estimates up to the time of the next census rarely produces the same count as that provided by the estimates obtained from the next census. The extent of such intercensal discrepancy is influenced by data limitations: both the data on the components of growth obtained from administrative sources and the census counts themselves are likely to contain some errors. Comparisons of such coincident estimates for recent census dates show that the discrepancies are small (an average of about 0.3% over the last four census years for estimates related to Australia's total population) but that they tend to be larger for estimates produced for each of the States and Territories (close to 3% for the Northern Territory for the estimates

Reconciling intercensal estimates *continued*

relating to the 1991 and 1996 censuses).⁶ The larger discrepancies associated with the States and Territories than for Australia as a whole indicate that it is with estimating levels of internal migration that, as might be expected, estimation errors are most likely to occur.

Population estimates of Indigenous people

Obtaining up-to-date population estimates relating to Aboriginal and Torres Strait Islander people in Australia is particularly important because various social indicators (birth rates, death rates and so on) which might be used to compare their wellbeing to the total population, or to monitor their wellbeing over time, depend on reliable population estimates. They are also important, in their own right, in terms of their use for government funding decisions. However, there are a number of issues that affect the production of reliable estimates.

A major issue relates to the fact that available census counts of Indigenous people are known to be substantially affected by the changing propensity of people to say, on the census form, that they are of Aboriginal/Torres Strait Islander origin. Analysis of past census counts have shown increases in numbers of Indigenous people that are larger than would be expected from levels of fertility, mortality and migration. The accepted interpretation for the increased population figures is that there has been an increased propensity to identify as Aboriginal and/or Torres Strait Islander. Thus, there is much less certainty that any post-censal population estimates produced for the Indigenous population would correspond with an actual population count if it were to be taken than is the case for population estimates of the total population. Further compounding the difficulty of producing reliable post-censal estimates and projections of the Indigenous population is poor data quality for Indigenous births and deaths in a number of jurisdictions. Data to establish internal migration are not available because there is no Indigenous identifier on Medical Benefits Service records. Despite these problems the ABS currently produces 'experimental' estimates and projections of the Indigenous population. The ABS advises that these be used with caution when analysing changes in the Indigenous population over time and that the analysis of any changes in rates which have been constructed using these estimates should also be undertaken with great caution.

DATA SOURCES

Censuses of Population and Housing (ABS)

Preceded by population musters and censuses of particular States, the first simultaneous population censuses of all the Australian colonies were taken in 1881 and the first national census was taken in 1911. It was followed by others in 1921, 1933, 1947, 1954 and 1961. Since 1961 they have been conducted at five yearly intervals. The censuses provide comprehensive population data including information on a wide range of socioeconomic characteristics and for a variety of geographic areas. These data are referred to as 'census counts' and are available as at census dates only. Since the expansion of ABS social survey program over recent

Censuses of Population and Housing (ABS) *continued*

decades much of the information collected in the census has also become available from other sources and often in greater detail. However, the census provides the essential basis needed to produce official estimates of the population at the national, State and local government levels as well as for regions and more detailed levels of geography. It also provides a great deal of flexibility in terms of deriving counts of small groups of interest and about people living in specific geographic localities in ways that are not possible from information collected in sample surveys.

Assisting with the task of producing population estimates and projections, the censuses also collect information about some of the components of population growth. These include information about people's place of residence at various times in the past which provides the basis for understanding levels and patterns of internal migration. Data on people's country of birth and their period of residence in Australia also supports the analysis of population change attributable to international migration. Studies on trends in fertility have also been supported by questions asking about the number of children ever born to women.

Census Post-Enumeration Survey (ABS)

From the 1966 census, each census has been followed by a Post Enumeration Survey (PES), to measure the extent of undercount. The questions asked in the survey mainly relate to the characteristics of people in the household, including age, sex, country of birth and marital status, and where each household member could have been counted in the census. At each of these addresses (including the interview address), the personal information is matched to any corresponding census forms for these addresses to determine whether a person is counted, is counted more than once, or not counted at all. Results obtained in the PES are used to adjust census counts in the calculation of all Estimated Resident Population (ERP) figures for Australia, and enable an assessment of some aspects of census field operations including the extent to which dwellings were missed by census collectors.

Registrations of births and deaths

The registration of births and deaths in Australia has been compulsory since the middle of the nineteenth century when legislation was passed by the various colonies. Since federation, each State and Territory has maintained its own system of registration governed by independent legislation. The ABS obtains information from each of the State Registrars for statistical purposes. Data available from birth certificates that are published on an annual basis include: the month of birth, the sex of the child, their place of birth, whether they were involved in a multiple birth, their Indigenous status as well as information about their parents, such as their ages, country of birth and for mothers the number of children to which they had previously given birth. Key data items relating to deaths include the sex of the person, their age at death, the date on which they died, the place of death, the cause of death, the usual place of residence of the deceased, their Indigenous status and their country of birth.

Records of overseas arrivals and departures

Good statistical records relating to overseas movement have been maintained since colonial days. This has been made possible by the relative isolation of Australia, the absence of direct land links with other countries and the limited number of ports of entry. There has also been relatively strict government control of arrivals and departures. Overseas arrivals and departures statistics have for a long time been compiled from information entered on incoming and outgoing passenger cards, and from visa and other information available to the Department of Immigration and Multicultural Affairs (DIMA). From these the ABS produces monthly statistics on numbers of short term visitor arrival and departures and annual statistics on long term and permanent arrivals and departures to and from Australia. Data items used for statistical purposes include those related to the travellers themselves (their age, sex, citizenship, country of birth and occupation) and those related to their journey, such as their arrival/departure date, their reason for travelling, their origin and destination (coded down to the State/Territory level when within Australia), and intended duration of residence or absence. DIMA also publishes a range of information about numbers of international movements including information about immigrants or 'settlers' who arrive in Australia under the various migration and humanitarian programs for which the government provides visas.

Records of interstate movements from Medicare

The Medicare system, established in 1986 to serve the large majority of Australia's population with various health care services, provides an on-going source of data on interstate migration that is used with other data to produce population estimates. The migration data is obtained by reference to the current and previous addresses of a person maintained on their membership registration records which can be compared for selected points in time. The data, available by age and sex, is known to have various problems (e.g. people do not always advise a change of address) so the data is not used directly to estimate internal migration — rather, internal migration estimates are modelled from the Medicare data. Because of the deficiencies in the data, statistics relating to internal migration obtained from Medicare are not separately published in their own right.

Symptomatic indicators of population growth

Although annual births and deaths data are available for SLAs, the absence of suitable international and internal migration data for non-census years means that it is not possible to use the component method to update SLA population totals. Instead, population for most SLAs are estimated by applying a regression model. Symptomatic indicators are any available set of data which in some way relate to changes in population size. Various indicators are used to support the provision of SLA population estimates produced by the ABS and the choice varies between States. Examples of indicators used include, dwelling approvals, Medicare enrolments, drivers licenses allocated and electricity connections. The relationships between population growth and symptomatic indicators are expressed mathematically in terms of 'regression coefficients' and, with the knowledge of the growth in the indicators for the current time period, they enable population growth to be estimated.

Longitudinal Survey of Immigrants to Australia (DIMA)

During the early 1990s, DIMA established a longitudinal survey to assess the settlement experience of recent migrants to Australia. The first round of the survey began with a sample of visaed immigrants (aged 15 years and over) and their families, who had arrived in Australia between September 1994 and August 1995. Respondents were first interviewed after they had been in Australia for six months, and reinterviewed on two subsequent occasions (at eighteen months and three and a half years after their arrival) providing a series of information about them. Items of information included, the type of visa used to gain residency, their labour force experience, their English language skills, income, housing, sponsorship of relatives, health status, and satisfaction with life in Australia. Work has since been initiated to obtain a similar series of information for a second cohort of immigrants who arrived in Australia between 1 September 1999 and 31 August 2000.

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CHAPTER **3** **FAMILY AND COMMUNITY.....**

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How do family and community relate to individual wellbeing?

An individual's family is often their most fundamental source of emotional, physical and financial care and support. Individuals and families also receive support and care from the wider community. The immediate family and the wider community are the context for individual achievement in other areas of social concern. They are the arenas in which children become socially responsible adults, and individuals gain a sense of belonging.

How do family and community relate to the wellbeing of society?

Families and communities are core structural elements in society – basic building blocks of national life. The family unit takes on a large part of the burden of caring for people in society, and the vast range of services provided by groups, clubs and charitable organisations are a crucial adjunct to the institutionalised care provided by governments. The family's role in providing guidance on social values is at the basis of a civil society. Day to day interactions between people in a community build trust and reciprocity: the strength of a society's community bonds often determine its resilience and cohesion.

What are some key social issues?

- Understanding how family circumstances affect individual wellbeing and how the various family types can best be supported in caring for their members.
- Deciding how support and care responsibilities can most effectively be shared within families and between government, non-government and voluntary organisations.
- Assessing the performance of family and community support programs and services including equity and access issues.
- Understanding the characteristics of strong, self-reliant communities and encouraging the development of community capacity for self-help.
- Encouraging voluntary work, cross-sector partnerships and other factors generating social capital.

What are some key definitional challenges?

A family is commonly thought of as a group of people who are related in some way, and who provide care, support and guidance to one another. When defining families for statistical measurement, it is practical to restrict this group to related people who live together. While this statistical definition may not identify extended family networks, or non-related persons providing care and support, it usually captures those people who are most significant to an individual, and it aligns with the concept of family that is the focal point for the administration of many social policy initiatives (e.g. government benefits and support services). The term community encompasses the wider care and support networks surrounding an individual. It can embrace formal support provided by government institutions; non-government care provided by volunteers and charitable organisations; as well as informal support exchanges e.g. assistance between neighbours.

What are the main measurement issues?

- How to measure extended family and other people providing care functions
- How to measure family formation and dissolution (including de facto relationships)
- How to measure community wellbeing including social capital, social cohesion and social exclusion.

DEFINING FAMILY AND COMMUNITY

Family

While a family is commonly thought of as a group of people who are related through blood or marriage, there is an enormous amount of variation and diversity in the way in which families are structured and function. Like every individual, every family is unique. Family can refer to a large extended network of people, which may be spread across countries, or to a small number of people residing in the same dwelling. Family structures and traditions also differ widely across different cultures. However, a theme common across the many perceptions of what family means is the understanding that a family looks after its members. Family can therefore be defined in terms of functions. Some of the core functions of a family are the exchange of love, affection and companionship; day-to-day nurture and care; economic security; a sense of identity and belonging; and guidance on commonly held social values.

Care and guidance functions take place within the family across the life cycle, beginning with parents (and sometimes grandparents) caring for children, and ending with children caring for parents. There is the day-to-day care of the household, whereby members contribute to the provision of food and clothing for one another, and to maintaining the family's physical environment. There is the more intensive care involved in looking after young children, or family members with short or longer term illnesses or disabilities. The emotional care and psychological support provided by families is also fundamental to individual wellbeing. The care needs of a family are often highly age related. For families with children, young infants need 24 hour care each day, formal childcare may be needed to supplement parental care for toddlers, and older children need support in their pursuit of both formal and wider education. For families with older people, caring revolves around whether these older family members have disabilities, what types of disabilities these are, and the extent to which they restrict activity.

While a family's primary function is to care for its members, families can be vulnerable to varying degrees of dysfunction. Individual families may be able to care for their members to differing levels of success, at different times in their life cycle. The level to which families are able to fulfil the role of caring for family members is a major focus of statistics in this area of concern.

The family counting unit

Although composed of individuals, the family can be seen as an entity in its own right, because family members have a sense of obligation toward one another and perform functions of care and support that are intimately binding. The wellbeing of the family per se is therefore of interest, and can be usefully measured using a family counting unit. The ABS family counting unit is currently based on people who are both related and co-resident. This is still predominantly the group that is most significant to an individual, and is also the family group targeted by key family support services. However, there may be important caring connections that lie outside this definition. For example, some people (e.g. children or older parents)

The family counting unit *continued*

may be financially dependent on relatives they are not living with, or be predominantly cared for by those relatives. These connections are often difficult to clearly and consistently identify, but information about them can usefully supplement data based on the standard counting unit. The important caring relationships surrounding children whose parents live separately may also need to be identified through tailored question modules rather than through the standard family counting unit. (Further definition and discussion of the family counting unit are provided later on in this chapter in the 'Frameworks' section).

Community

The term 'community' also refers to an inter-connected group of people who can influence one another's wellbeing — however, an individual's community is usually considered to be broader than the people with whom they live or have immediate family ties. Communities are commonly thought of as being groups of people living within particular geographical areas, such as cities or rural towns and their surrounding areas, but there is no particular geographic criteria that are widely used to set limits in defining a community. Indeed, the choice of area depends on the focus of interest and can vary in scale from the global to the neighbourhood level. The use of geographical areas to help define communities recognises that people are connected by the habitat in which they live (both the natural and built environments) and that they often have common concerns about the quality of their habitats (e.g. the quality of the environment, the range of services available in the area, and so on). A commonly used and apt way of choosing areas that define communities is to choose those that accord with areas of governance. Thus, in Australia, people in particular Local Government Areas (LGAs) or States and Territories, and those that form the population at large, may all be seen as communities, not only because the people in these areas have a common area of residence but because they share regulations, laws, rights and obligations relating to a wide range of matters.

There are other connections between people which are not geographically based but which indicate the existence of communities. These include connections relating to shared values, traditions and lifestyles. Thus, people with a shared culture or heritage such as groups of Indigenous people, people belonging to religious groups, or groups of people born in particular countries who maintain associations with each other, are often viewed as belonging to a community. Communities may also be defined in terms of people with a shared set of interests or activities, for example, 'school communities' or 'arts communities'. Notwithstanding the many possible connections between people that may be used to define communities, there is an important sense that the wellbeing of the members of a community is influenced by their connections to others.

Like the family, a community may be an important source of support and care for individuals, and individuals can gain a sense of identity and security from belonging to a community. The organisations and institutions surrounding and supporting a community (e.g. political, business, educational, religious, welfare and other institutions) provide work and education opportunities, infrastructures for health

Community continued

care and leisure pursuits, the opportunity for companionship, and also provide a means for delivering guidance on, and shaping, social values. Statistics about the community are most often needed to inform debate and policy centred on the capacity of the community at large to care for members, and on how that capacity can be improved. There are various levels of community within the social environment. Although there are not always clear cut boundaries between these, some basic groupings, which align with the transaction model of communities presented in Chapter 1, are described below.

Formal community

Some community care functions are so important to social wellbeing they have become institutionalised. For instance, health care is provided through hospitals, and education through schools and universities, the criminal justice system protects citizens and ensures the predominance of law and order, and the cultural life of the nation is preserved and promoted through heritage and other cultural institutions. It has become a core obligation of governments to provide and maintain these institutions. Governments also have an obligation to assist people to gain sufficient income, and achieve this in part through promoting labour market activity which can provide people with employment opportunities. This level of community and government activity can be broadly described as formal, and is covered by the areas of social concern that are the subjects of the following chapters of this book.

There is also a non-institutional, but still highly organised, or formal, network of support and care supplied by groups and organisations such as charitable bodies, clubs, community associations, support groups and businesses. These groups may operate in conjunction with the institutions mentioned above, but are not usually essential to them. Parents and citizens associations operate within schools but are separate, self-funded bodies; charitable organisations cooperate with government relief programs but are independently run. Such groups make an enormous collective contribution to society, through supporting schools, nursing homes, young people, people with disabilities, older people, families and communities.

Informal community

There are also many community transactions that are not planned or organised but occur within the society on a daily basis and contribute to support and care functions in ways that are significant but difficult to quantify. Day-to-day interactions between people in a community build relationships that mean people are more willing to assist each other in times of need (e.g. interactions between neighbours or between retailers in local shopping centres and their customers). More significant relationships may be built between work mates, or people using the same childcare or medical facilities. Interactions such as these can also build networks that assist individuals to gain information or make other connections of value to them. Libraries and other public places can be important meeting places; for example, shopping malls can be central to the social networks within which young people operate. There is increasing awareness of the importance of this level of community activity

Informal community *continued*

and a number of ways in which these interactions can be measured. These measures link closely with emerging interest in social capital and how it can be defined, constructed, repaired and maintained.

FAMILY, COMMUNITY AND WELLBEING

Individual wellbeing

The care and support generated within families is the foundation for good health and the optimal social functioning of individuals. Ideally an individual's family provides them with the range of care and support functions detailed above. The family is also assumed to be the primary arena in which children learn to function as adults and are socialised in acceptable behaviours. Finally, with its extended and ancestral branches, the family can provide an individual with a sense of identity and context.

There are many reasons why families may not always fully meet this ideal and may negatively influence the wellbeing of their members. Individuals in a family can be affected if a member is unemployed or has poor health or a disability, particularly if this person plays a key role in providing income or care. The greatest responsibility for care of a sick family member or one with a disability often falls on a particular person in the family, who may be prevented from working and/or be reliant on income support because of this caregiving role. Violence within families can be particularly and directly detrimental to the wellbeing of those involved.

Other, more intangible aspects of the family environment can affect individual wellbeing. Both positive and negative examples of behaviour may be set within families, and some family environments can compromise a child's ability to become socially capable, or may contribute to depression, suicide or other health damaging behaviours. The way in which family members interact with each other, whether effectively or dysfunctionally, can influence a child's ability to form healthy relationships in the future, both intimate relationships, and relationships with the wider community. In some cases, the effects of a negative family environment background may be carried across generations, as behaviours and expectations learned in childhood are passed on. However, some individuals may overcome an adverse family background and see it as having contributed positively to their longer term achievements and character.

While there may be individuals whose family plays a negligible role in their life, the wellbeing of individuals living alone, or without family support, can be affected by their lack of family. These people may be more susceptible to loneliness, may be less financially secure, or feel less physically secure in their environment. Individuals in emigrant families may not have the same extended family resources as other families have to draw on in times of need.

An individual's community also has the potential to have a significant impact on their wellbeing. Where a family does not have the resources to provide the necessary care for an individual, community networks and organisations can step in to assist. Neighbours can bolster the sense of security and belonging built up around the family home; clubs and pubs provide venues for socialising and building friendships;

Individual wellbeing *continued*

and hobby groups and community-run courses contribute to an individual's experience and broader education. Cultural groups can provide a sense of identity to individuals; charity organisations provide goods and services for individuals on low incomes; and social networks can be an important means by which individuals find employment. Conversely, communities which are facing problems such as high crime rates, or where levels of trust and goodwill are low, have the potential to negatively influence individual wellbeing.

Wellbeing of society

'Private social exchanges assisted by public support are the core of social reproduction of the type of society in which we would like to live.'

Australia's Welfare, 1997, Australian Institute of Health and Welfare

Families and communities are core structural elements in society – the basic building blocks of Australia's national life. Families take on a large portion of the economic and physical burden of care for individuals in society, particularly for children, aged people or people with disabilities. If it is operating effectively, the family, as a self-contained welfare unit, is therefore a crucial mechanism in the health of society as a whole. The family is a primary determinant of whether or not children grow up to be law abiding citizens who are able to contribute to the greater good, and who have the motivation to do so. Because of the fundamental role families play in educating children in a range of social and physical skills, society is highly dependent on positive family functioning. Where families are not able to nurture healthy, confident and socially responsible individuals, the community bears both the financial cost and the wider social consequences.

Local communities also take on caring functions, provide forums for socialisation and relationship building and support the education, sporting or artistic endeavours of their members. The community feeling generated in small towns or localities (e.g. when local athletes compete in State level competition) is often the basis for positive national identification. As self identity develops through a sense of membership of the community, individuals become aware of their responsibilities toward others, which enables them to identify when community norms are violated.¹ Caring and support activities, undertaken by and within communities, deliver benefits to the community in several ways. Some individuals and families benefit directly (i.e. those receiving the food, shelter, care, etc.), and this decreases the burden on society overall. In addition, the processes and infrastructures that are initiated and developed in undertaking these functions, in and of themselves, engender trust and cooperation between people and thus strengthen communities. For example, fundraising events and committees, and other forums where groups of people interact and cooperate towards a social good outcome, have inherent value for the community.

Different types of relationships may be necessary to achieve optimal wellbeing for individuals and the community.² For example, relationships within families and within social or cultural groups (which tend to constitute an individual's core community) can provide affection and friendship, and can support beneficial moral

Wellbeing of the society *continued*

and social values. However, by itself, this type of network can promote narrowness, be oppressive for individuals, or can be exclusive and promote divisiveness in the context of the larger community. Thus these core relationships may need to be combined with looser relationships that range across a variety of social or cultural groups. These broader relationships may be work based, or created through activities people participate in. Such networks can promote tolerance and trust more widely in the community, build people's capacity to work together to achieve a common purpose, or assist in the rapid flow of information. Individuals may also benefit from connections with, knowledge about or access to people in positions of power. Without this kind of connection, it may be difficult for people or groups affected by disadvantage to take successful action to improve their wellbeing.

'... publicly provided welfare services, although important, are only a small component of the totality of welfare exchanges. The importance of publicly provided services stems from the fact that they support or back up the care provided by families and individuals. Accordingly, the more important consideration in regard to families and welfare services is not how changes in families may alter the demand for public services, but how public services can support and strengthen families.'

Australia's Welfare, 1997, AIHW

SOCIAL ISSUES

Changing nature of the family

Over recent decades there have been significant changes in people's attitudes to family roles, and extensive change in the way families are structured and function. One major change has been in the workforce participation of women, particularly married women, which has affected traditional gender roles. The early post-war model of a male breadwinner, with a wife supporting the family at home, is no longer the norm. Institutional roles have changed in association with this, and government support for childcare has increased.

Trends in the way families are structured have a range of social implications. Trends towards later partnering and child bearing have implications for the age profile of the population. People are having fewer children, which is contributing to reduced population growth. Trends away from registered marriage (particularly among younger age groups) may affect the long term economic status of individuals. Increased sole parenting affects the amount of government support required by parents. Young people living at home longer extends the time that families are involved in supporting their needs.

The changing nature of the family needs to be understood and monitored to determine how well families are coping with new circumstances, and the best means of supporting families within these. There is considerable interest in determining whether families are undergoing more transitions than in the past and whether this instability has implications for wellbeing. The prevalence of divorce and family breakup is of particular interest and concern.

Family dysfunction

While family transition and reformation can result in an improvement in the emotional or financial lives of the individuals involved, change that is a result of a family becoming dysfunctional is often accompanied by a degradation in both the economic and physical environment of the individual family members, at least in the short-term. Children who experience such transitions may be affected emotionally, or have reduced social capability or poorer educational outcomes. They may go on to form dysfunctional relationships and perpetuate a cycle of social disadvantage. Associated with these issues are issues surrounding the numbers of people who end up living alone, or without close family support. The provision of crisis accommodation for victims of domestic violence or residential care for homeless people and children, are all issues of concern for community service areas.

Care and support

Issues associated with care and support involve a number of different players: both receivers and providers. Within the family unit, it is important to understand the needs of family members receiving care, and also to address issues relating to those providing care. In terms of the wider community, there is interest in the level and type of support needed by the different family types caring for family members. Three major areas of interest are child care, care of older people, and care for people with a disability.

The use of formal child care can be a necessity for families who need or want to have both parents in the workforce, or for one-parent families. On the other hand, the cost of formal child care may make labour force participation prohibitive for some parents. Government assistance in the child care area is important in relieving the burden of care on some families, whether it be through grants to community based child care centres, or assistance to families in meeting the costs of child care. Governments need information on how much formal and informal child care is being used in order to develop appropriate policy responses and support programs.

The ability of families to care for members with a disability or older members is also of interest, particularly considering the ageing of the population. Governments need to understand the amount and type of care, whether institutional or respite, required for the elderly and those with a disability. Also important is information on the support provided by carers, and the effects of caring on carers and on program expenditure. The support needs of children, people with a disability and older people are changing over time, and the impact of these changes on the working population that has traditionally supported them (see also 'Population groups' section below) is another area of interest.

Distribution of care and support

There are issues surrounding which groups within the community should provide support to families, and the most effective way to share welfare responsibilities between governments, non-government organisations, volunteers, and family and community members. The way in which care responsibility is viewed can determine the focus of social policy. The marketplace is increasing its role in providing care and support facilities for families, such as child care and aged care facilities. There are also an increasing number of voluntary agencies and volunteers supplementing

Distribution of care and support *continued*

government assistance. Both these trends reflect shifts in welfare responsibility. Statistics about the proportion of welfare services provided by these groups can inform this debate, as can information about how much voluntary support is provided informally and how much through non-government organisations. The proportion of the aged care cost borne by governments, the allocation of funds for family allowances and child care services, and the levels and types of disability support and parenting payments are all associated areas of interest.

There is also a need to understand the dependencies that exist between family members, for instance, between older people and their children, and what transfers of money and assistance occur between households (e.g. between non-resident parents and children).

Finally, social and neighbourhood networks also play a role in providing support and assistance to individuals and families, and there is a growing need to understand the importance of social networks to the health and wellbeing of individuals and the larger community. For example, people may benefit generally where they are confident that they can call on people for support if necessary, even where there has been no occasion to do so. Information is needed to inform policy or programs that will encourage and maintain supportive social networks and make these widely accessible. Emerging interest in social capital and its role in maintaining the health of communities is linked with many of these issues.

Voluntary work

Unpaid and voluntary work in the household and in the community makes a substantial contribution to the national economy. This contribution needs to be understood, quantified and recognised. Understanding the type of voluntary work performed, why people undertake voluntary work, and how this can be encouraged is an important aspect of the analysis and promotion of social capital in communities.

Wellbeing of regional and local area communities

As with the nation as a whole, the wellbeing of regional and local area or neighbourhood communities depends on the strength of the economic base on which those communities are founded and on their ability to attract or develop people and other resources in accordance with societal norms. However, as with the wellbeing of individuals and families, there are many other aspects of a community's life that can affect its sustainability and wellbeing. These are associated with the health, education, and housing circumstances of people in those areas, the prevalence of crime, as well as the availability of a wide range of community services. Statistics that help describe the relative wellbeing of different communities can support planning for those that might need greater levels of public policy attention.

POPULATION GROUPS

Certain types of families may be more vulnerable to social disadvantage and have greater support needs than others. In some cases this is due to the characteristics of individuals within the family (e.g. there may be a family member with a disability), and in others it relates to the sociodemographic characteristics of the family unit

POPULATION GROUPS *continued*

per se (e.g. the family may be located in a remote area). Thus, while there are concerns about population groups whose wellbeing is fundamentally linked to family and community factors (e.g. children, people with a disability, and older people), particular types of families are also of interest (e.g. rural families). Understanding which types of families are at risk of disadvantage, the particular needs of different types of families, and the way in which these families can be effectively targeted by government interventions, benefits and services are core issues for this area of concern.

One-parent families

On a range of indicators, lone parents can be seen to be at greater risk of disadvantage and more likely to be living in poverty and/or reliant on government benefits for income. Lone parents may find it difficult to balance work and care responsibilities effectively.

Rural families

Families living in rural areas may be more vulnerable to problems linked with employment and industry restructuring. They may also have reduced access to basic government services such as hospitals, schools, higher education and formal family support services. These difficulties have the potential to compound family problems, or delay their resolution, and rural families may be more vulnerable to mental health problems, such as depression and suicide.

Indigenous families

Indigenous families have a high risk of disadvantage. They often face the same disadvantage that rural families face. Cultural and language barriers sometimes limit their full receipt of government or community services, and they may experience discrimination within the community. The very specific traditional family roles and networks of Australia's Indigenous peoples were disrupted during colonisation. The extent to which these need protection and revitalisation, and the means by which this might be effectively achieved, continue to be important social issues.

Families with a member with a disability

Families in which there are people with a disability have special support needs, particularly where the people with a disability perform key income earning or caring roles. Many issues in the area of family and community are associated with identifying the prevalence of disability in the population and how this is changing over time and with the ageing of the population. The severity of disability also needs to be measured in order to determine the extent to which people's activities are restricted and what levels of support are required.

Children

The wellbeing of children depends to a large extent on the healthy functioning of the family environment. Children in lone parent families may be affected by the lack of a male or female role model, or by parental conflict over residential arrangements. Children in couple families may also be at risk if the family is dysfunctional or

Children continued

abusive. While child care issues can be looked at from the point of view of parent needs, children are also key players in child care transactions and have the right to high quality care.

Older people

As with children, the wellbeing of older people can be fundamentally dependent on their family, and on community care services. Elderly people may need a range of types of care. Those who are physically independent but isolated by the loss of a partner or relocation, may need housing within a community where they can develop new relationships and be close to support facilities. Those with physical disabilities may need even greater access to medical facilities and assistance with shopping or other household activities. Those who are very ill or frail may need 24 hour care every day in nursing homes. As well as physical and practical care, older people need to be able to retain their individuality, dignity and full rights as human beings. The quality of care in nursing homes, where residents may be unable to assert these rights, is an important social issue.

People with a disability

As with older people, there is a need to provide people with disabilities with a range of services and support, and with the means by which they can enjoy as full a participation in life as possible and full human rights. There are issues surrounding the type, intensity and quality of care required by people with a disability. Young people with severe or profound restrictions face a lifetime of reliance on family and community support services, and on the goodwill of those involved in caring for them. Some people with disabilities may be parents or perform caring roles themselves, which means they may face additional challenges and pressures.

Carers

In recent years there has been an increasing awareness of both the importance of carers in the community, and of their support needs. While the role of carer may provide a sense of satisfaction, it may also involve substantial personal costs, both in terms of mental and physical stress and in lost opportunities for work, earning of income and leisure. Respite care and various forms of home and community care programs can be vital to maintaining the emotional and physical wellbeing of carers, and thus of the family. An issue associated with providers of care is whether the contribution of unpaid work and caring work is recognised and supported by government policy and community programs. The adequacy of government support for carers is also regularly debated.

FRAMEWORKS

The family counting unit

Because of the diversity that exists in types and structures of families it is necessary to make some decisions about scope in order to define families for statistical measurement. Inherently this involves narrowing the definition of the family and restricting who is considered a family member.

The family counting unit *continued*

Care, nurture and economic support are usually provided by related people who live in the same dwelling — by co-resident fathers, mothers, spouses or siblings. Because this has traditionally been true, and continues to be true in most cases, this immediate family group is targeted by assistance programs and policy, and is the focal point for the administration and receipt of many social policy initiatives (e.g. income support benefits). For these reasons the ABS family counting unit is identified by the presence of couple relationships, lone parent–child relationships or other blood relationships, within a household.

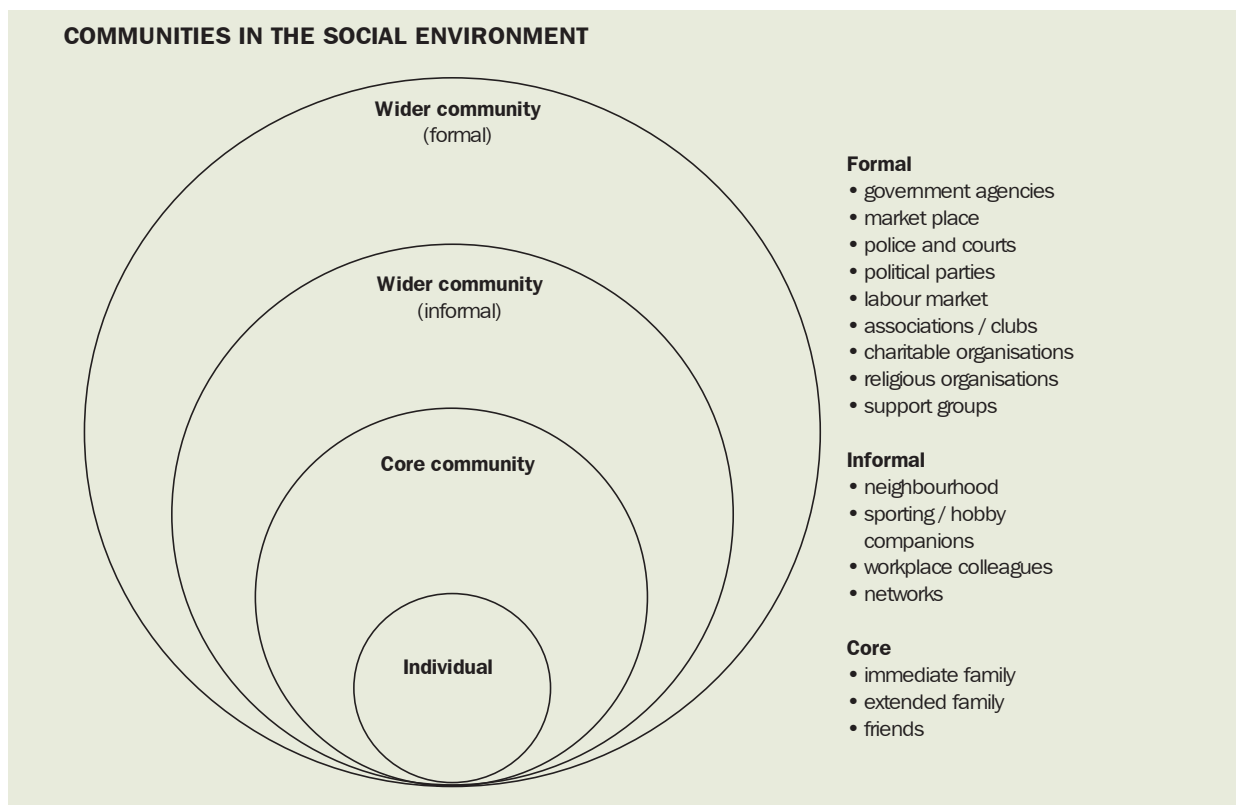
The ABS standard definition of the family counting unit is: 'two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who are usually resident in the same household. The basis of a family is formed by identifying the presence of a couple relationship, lone parent–child relationship or other blood relationship. Some households will, therefore, contain more than one family.'

While the family counting unit as defined has practical advantages, it also has some disadvantages. Many families interact beyond the bounds of a single household, particularly in terms of the family economic environment. Parents may provide financial and in-kind support to adult children living away from home, people provide meals or transport for their elderly or disabled relations, and there are often transfers of cash and in-kind income between families (included in the ABS framework for economic wellbeing). There are also situations, such as group households, where care and support functions are shared by household members who are unrelated. There may be people living in a household who are unrelated to any families within that household, e.g. boarders, who will be classified as non-family members, regardless of the family connections they may have outside that household, or the care relationships within the household. These kinds of transactions, and extended and non-family relationships, need to be measured in ways other than by using the standard family counting unit.

A model of social attachment

There are a number of ways of organising the collection and analysis of family and community statistics. One way of mapping the care and support terrain surrounding an individual is to identify and classify the communities in which the individual is embedded.

Communities can be identified as either core communities (i.e. those involving primary attachments) or wider communities (those involving secondary attachments). Core community relationships may be involuntary ones relating to birth or place of origin (e.g. parents, ethnic community attachments) or voluntary ones (e.g. spouse, friends). The wider community can be subdivided into formal and informal communities, that can be broadly delineated according to level of organisation, objectives and sources of funding. These ideas are summarised in the diagram on the next page.



A model of social attachment *continued*

Using this structure, data collection can be organised around the expected functions of each community type, and the adequacy and effectiveness of each community type in providing these functions. To this end, useful measures might relate to the capacity of families to perform core community functions (i.e. to provide care, economic security, guidance and identity to the individual — as discussed in detail above).

All entities in the wider community have functions associated with their own specific objectives. However, some key functions relating to care and support can be identified and monitored. At the level of government and government institutions, the formal community provides services in line with identified areas of social concern (e.g. health, education, etc.), and assists the core community to carry out its functions. Government services also supplement or supplant the core community in particular areas. Some key government community services are described below. Other elements of the formal community, e.g. charitable organisations, also assist the core community to carry out its functions.

The informal community, when functioning optimally, supplies miscellaneous and ad hoc support to individuals and families through neighbourhood interactions or through other informal networks, such as those built up within the workplace. Among other things, social capital measures aim to capture the success of the informal community in performing these functions.

A model of social attachment *continued*

Ultimately, the responsibilities of individuals within the core community, the functions of the core community, and the receipt of support from the wider community are at the heart of successful, or potentially successful, human relationships. Measuring and monitoring these community functions is therefore central to measuring wellbeing within the family and community area of concern.

Communities represented by geographic areas

As discussed in the introductory section, communities can be conceptualised in various ways. However, a widely used approach is to consider communities in terms of the geographic areas in which people live. Within this approach, there is a large range of choice when defining specific communities. Options available from the Australian Standard Geographic Classification, described in Chapter 2, include defining communities in terms of urban centres or localities, regions that notionally have a common economic base, areas of governance (States/Territories and Local Government Areas) and suburban areas, to name a few. Decisions about how to identify communities ultimately depend on the particular issues to be investigated. Thinking about how to choose and define areas that represent communities optimally is, however, being advanced by a number of bodies. A recent example is the development of the notion of 'social catchment' areas to define communities in non-metropolitan areas.³ These areas are functional areas based around one or more urban places where much social and economic activity is focused and which the people living in the area are likely to identify as being their community. While the criteria used to develop such areas have yet to obtain wide acceptance in terms of application, they point to some ways in which more effective means for defining communities may be established.

Community services

The many areas of government community service that need to be monitored and informed can be classified into four main groups.

Children's services — aim to support the provision of affordable, quality child care, and to protect children at risk of harm. Children's services cover child care services for children under school age and of primary school age, preschool services and child protection services. Children needing protection include those who have been or are being abused or neglected; or whose parents cannot provide adequate care or protection.

Family services — aim to support families, particularly those in crisis, to improve their quality of life. Some family service programs, such as the Supported Accommodation Assistance Program provide emergency accommodation and crisis care for families and individuals.

Aged care services — include residential, community and housing aged care services. These aim to provide high quality, cost effective services across a diverse framework of needs – many of which are informed by housing statistics (see Chapter 8).

Disability services — aim to support people with a disability and their carers, taking into account the specific needs of individuals and focussing on facilitating participation in the community. Services provided or funded by the

Community services *continued*

Commonwealth State Disability Agreement (CSDA) and those funded under the Home and Community Care program (HACC) form the bulk of the disability specific welfare services. Services provided under the CSDA include accommodation, in-home support, respite care, community support, and disability specific employment services, and are focused mainly on people aged under 65 years. HACC services cover both people with a disability and the frail aged, and are focused on enabling people to remain in their own home. HACC services include home nursing, delivering meals, home help and maintenance, transport and shopping, respite, and assessment and referral.

Measuring community services

Defining the scope and boundaries of Australia's formal system of welfare and community services has always been difficult for policy makers and statisticians. One important conceptual distinction to make in this area is the difference between welfare services and social security. Welfare services tend to be those that involve the delivery of direct and personal services such as child care and home help, and tend to differ somewhat between the States and Territories. Welfare services are often of interest in other areas of social concern, such as housing. Social security relates mainly to payment of cash benefits and pensions. Social security payments tend to be uniform nationally.

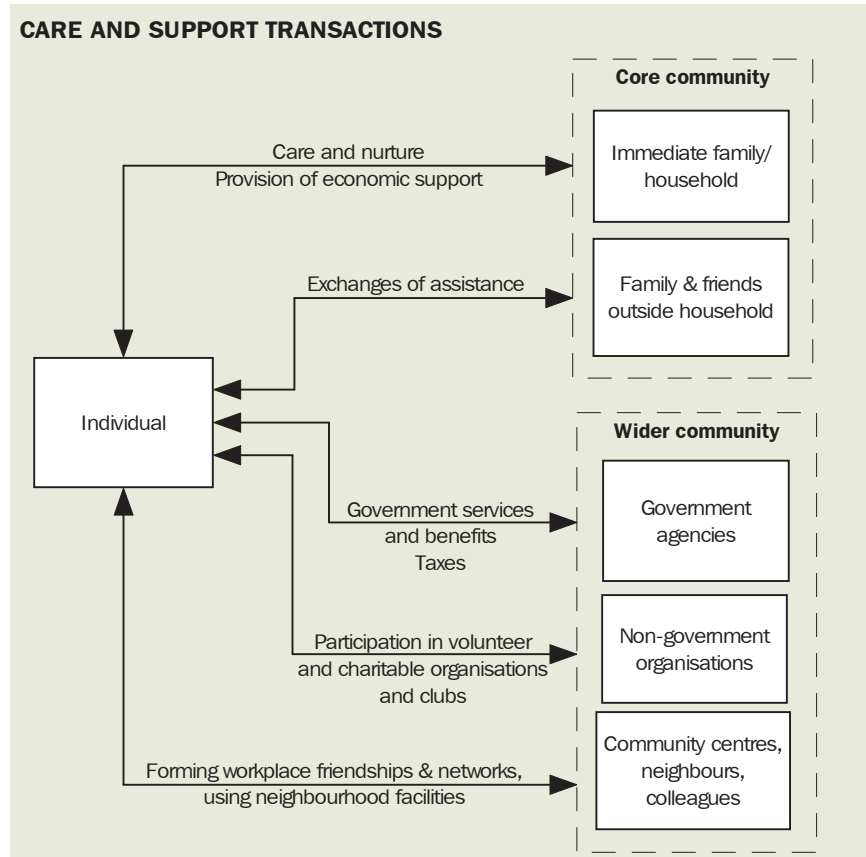
The National Community Services Information Management Group (NCSIMG) has developed a framework that maps the formal community services sector in terms of the information required about it and available from it. This framework (the National Community Services Model) provides a structure for community service information. It aims to describe data elements that are commonly applicable throughout the community services sector, to put these into an internationally standardised form, and to promote the use of these standards in community services data collection. Among other elements, the model identifies these headings under which community service information can be categorised:

- *Parties*, i.e. either persons, families, households or other groups, and their characteristics. Person characteristics in this model include demographic, socio-cultural, educational, labour, accommodation, income, legal, impairment, disability, functional and other characteristics. For groups, such as households or families, the main characteristic identified is income.
- *Events*, e.g. birth, change in environment, economic transaction, referral.
- *Environments*, e.g. social, cultural, economic, political, physical, equipment.
- *Enabling factors*, e.g. resources, knowledge, availability, accessibility.
- *Roles*, e.g. citizen, carer, recipient, service funder, service provider.
- *Location*, i.e. address, service delivery setting.

The NCSIMG National Community Services Data Dictionary provides important meta-data for this framework.⁴

Transaction model

Another approach to organising family and community data is to examine key players and transactions using the transaction model described in Chapter 1. Some examples of important care and support exchanges involving families and communities are shown below.



Three main forms of exchange that occur within families and communities in relation to care and support emerge. These are: exchanges that occur within households or families; those that occur between individuals and the wider community; and those that the family unit undertakes with the wider community. When these exchanges take place, it is usually with the aim of maintaining, improving, or repairing the wellbeing of one or both parties involved. These exchanges are therefore useful indicators of wellbeing and how it is changing within the family and community area of concern.

Individual transactions within the family — People in a family are bound together by obligations of blood or marriage into a small enterprise. This binding enhances the exchange of a range of emotional and material resources aimed at achieving optimal family functioning. In some families, members have specific roles and responsibilities, which are often gender based, such as the provision of day-to-day care or of economic security, while in others these roles are shared by family members.

Transaction model *continued*

Individual transactions with the community — Family members also engage in a range of transactions with family and friends outside the household and with the wider community with the aim of improving their own, and/or the family's wellbeing. Individuals receive various forms of support from the community. For instance, the marketplace allows family members to earn income, and educational institutions provide a forum for learning new skills. More direct support is received from the community in the form of government benefits or charity. The benefits arising from these improvements in the wellbeing of individual family members can be shared in transactions within the family, and this is often their primary application.

Family transactions with the community — The main transactions involving the family as a unit occur with government or non-government welfare organisations, often as a result of a change in a family's structure or in its ability to function effectively. For example, family composition may change as a result of a family member leaving that had performed a core emotional or financial function, or because a dependent person joins the family, e.g. a new baby. Similarly, family functioning may change if a family member becomes ill or disabled and becomes a receiver of support rather than a provider. In such circumstances the family may enter into transactions with the formal community to receive a range of benefits and/or services. A family may also undertake transactions with the marketplace as an economic production or trading unit if it runs a family business.

Measuring change

Indicators of wellbeing need to illuminate the changes people may experience over time, as well as their current quality of life. In terms of families and communities, change can be categorised into two types.

- (i) *Structural* change, which occurs in response to external changes and reflects changes in the wider social and economic environments in which people live. The social structure or environment may change because of shifts in population structure, density or mobility. Wars, environmental pressures, migration, unemployment, or legislative change can prompt transitions in families and communities. Governments may alter their expectations about the responsibilities or key functions that families or the community should perform. Structural change that weakens whole communities, such as the closing down of a key regional industry, can lead to a family experiencing disadvantage across a range of areas, for example reduced access to employment or training opportunities, leading to reduced economic wellbeing and greater dependence on welfare.
- (ii) *Life course* change, which occurs in response to internal changes in families or communities. At any one time family or community members have differing and particular physical, financial, emotional or practical needs, according to their age and the developmental stages they are experiencing. There are any number of transitional events associated with life course change for families, for example, the birth of a child, a child leaving home, retirement or death of a family member. These changes form the basis of a measurement model described below that can be used to organise the collection of family statistics.

Family dynamics framework

Families and households can be classified in terms of their particular state at any one point in time. The family and household type classifications outlined below perform this function. That is, they classify families as being couple families with or without children, one-parent families, or another type of family. Within these categories, there are further different types of family. For example, families with children may have one child, or several children; they may be supporting children who are students, or consist of an elderly parent with an adult child. These kinds of categories and subcategories will usually only be operative for a family for a finite period, as families will change in structure as the people in them move through the life cycle. Children grow older and leave home, siblings find partners, and elderly parents die. Transitions that impact on family type can also be classified, for example, as births, deaths, marriage or partnering, a child leaving home, couple separation. These classifications of states and transitions can be used together to describe and analyse family dynamics, and the number and type of transitions experienced by families can be counted to provide insight into family wellbeing.

Particular data sets will provide information about particular family stages and transitions. Data providing insight into family formation includes data about marriages (registered and de facto), such as age of marriage and remarriage, and births, including fertility rates, age of childbearing, number of children, etc. Data providing insight into family dissolution includes data about the separation and divorce of couples, children leaving home, and deaths.

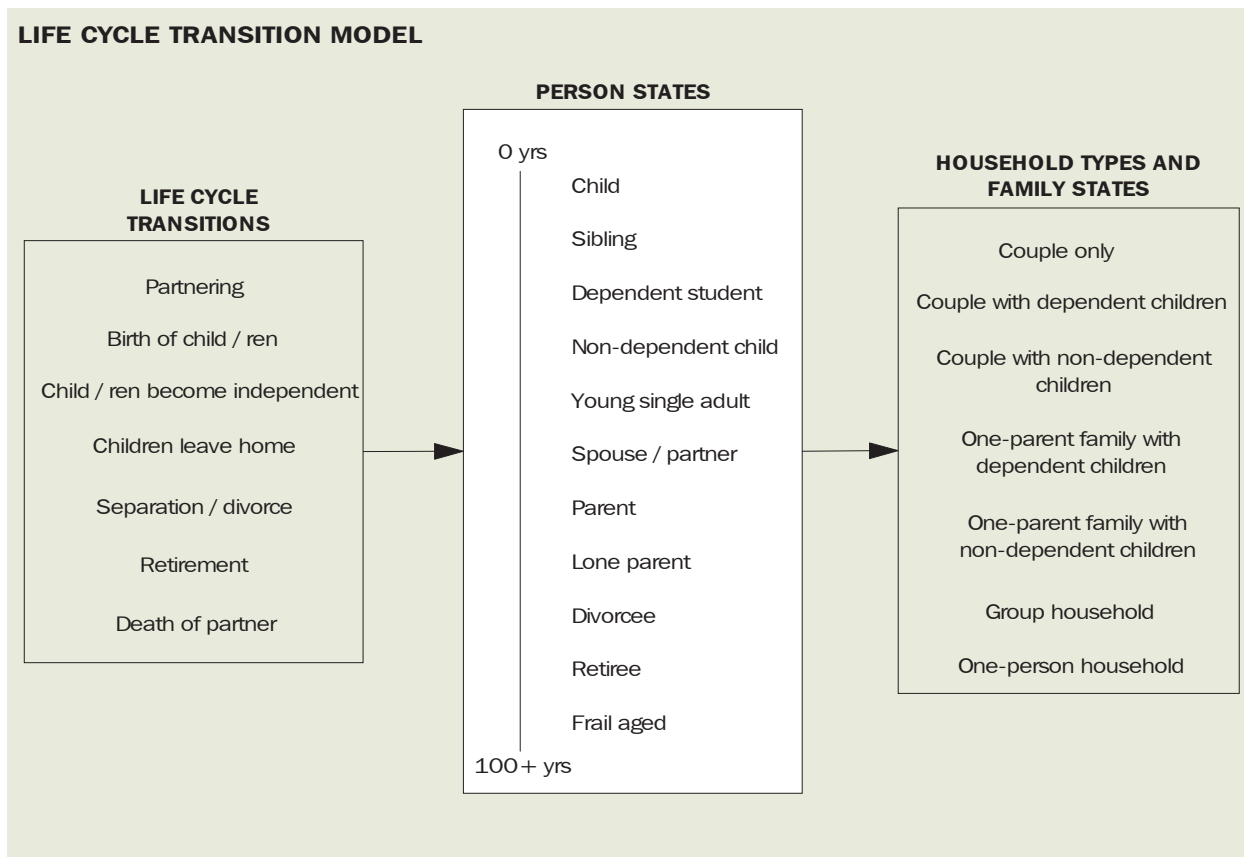
Each of the above transitions has the potential to affect the economic security of a family, particularly the birth of children. Some transitions may increase the wealth of the family (e.g. a child leaving home). Data about these transitions therefore provides some insight into the economic functioning of families. Other transitions, such as the death of a family member, may cause stress and disrupt the family's optimal functioning, and can reflect on the resilience of families.

The model described indicates some key family states and transitions. The examples provided cover a variety of situations. A typical flow may involve two people living in separate households who come together as partners and form a third household and a couple family. This family may go on to have children, thus changing their family status to couple with children. Later, when that child leaves home, he or she may create another household, and the parent's family status will change once more. When partners separate, new households can again be created. One may be a lone-person household, the other may consist of a one-parent family. Most life cycle transitions, particularly those relating to the formation and dissolution of relationships may occur at any age and may also recur. For example, a person may marry and divorce several times during their lifetime, and may have children in any or all of those relationships. Thus at various stages they may be a lone person, a spouse or partner, a parent, a lone parent, a partner again, a divorcee, and so on.

When considering the state of a family and the transitions it has experienced, it is important to consider the age of the family and family members. For instance, a couple-only family, who are yet to have children and are at the beginning of their working lives, may differ dramatically in their needs and functioning from a

Family dynamics framework *continued*

couple-only family whose children have left home and who have left the workforce. Some examples of family dynamics in terms of states and transitions are provided in the diagram below.



Classifications used to describe family structure

There are four main classifications used by the ABS to describe family structures within households. These classify people, families, households and couples (detailed descriptions of these and other family statistics concepts can be found in *Standards for Statistics on the Family*, ABS, (Cat. no. 1286.0).

Relationship in household (classifies people) — This classification classifies each person living in a household and is used to determine familial and non-familial relationships between these individuals. The classification has four levels of categories. The highest, or broadest, level identifies eight categories of people:

- husband, wife or partner;
- lone parent;
- child under 15;
- dependent student;
- non-dependent child;
- other related individual;
- non-family member; and
- visitor.

Classifications used to
describe family structure *continued*

Within these categories, further characteristics are identified, such as sex, which allow for classification of relationships at more detailed levels (e.g. same-sex couples can be identified). Relationship in household information provides the basis for classifying people by family type, household type, marital status and income unit type, and can be used to derive other family related information, such as the identification of step and blended families.

Family type (classifies families) — This classification is used to differentiate families within a household from one another and to classify each family. It is based on the familial and dependency relationships that exist between family members, i.e. on the presence or absence of couple relationships, parent–child relationships, child dependency relationships, or other blood relationships. The family type classification is hierarchical and at its highest level four family types are identified:

- couple family with children;
- couple family without children;
- one-parent family; and
- other family.

At this level of the classification, each category includes a wide range of families. The family classification does not currently distinguish between couple families who are childless and those who have children that do not live with them. Similarly, the category one-parent family includes both families where there is a lone parent with young children and families where an aged parent lives with a mature adult child. However, such distinctions may be incorporated into the classification in the future.

The second level of this classification introduces the concept of child dependency to provide more detail about family type within couple and one-parent families. Further levels of detail identify non-dependent children and the existence of other relatives. Provision is made for separate identification, where required, of opposite sex and same sex couples within couple families. The classification of family type is used by ABS both to describe the counting unit 'family' and as an attribute of the counting unit 'person'.

Household type (classifies households) — The household type classification is used to identify whether a household is a family household or not, and the type of non-family household. The latter category provides for the identification of lone person households and group households. The household type classification also identifies the number of families in a household and the presence of non-family members in family households.

This classification is expressed in terms of the number and composition of families within households and is thus determined by the relationship of household members to each other and the existence or absence of familial relationships.

Marital status (classifies people) — In accordance with the recommendations of the United Nations, the standards for marital status specify two distinct variables: registered marital status and social marital status. The registered marriage variable classifies people as never married, widowed, divorced, separated or married. The

Classifications used to describe family structure *continued*

social marriage variable includes a category for de facto marriages and classifies people according to their usual living arrangements. The social marital status variable is used to identify the presence of all couple relationships within a household. The social marital status classification is most commonly used and has at its highest level the categories 'married' and 'not married'.

Indicators of social and family functioning

In consultation with experts from various disciplines, the Commonwealth Department of Family and Community Services (DFACS) has also developed a framework for measuring key aspects of family wellbeing. It embodies many of the dimensions described in this book, both within this chapter and those more fully articulated in the following chapters. Referred to as a 'causal pathways' framework, it presents a focused view of the various resource domains that affect family functioning, with particular reference to factors that are likely to affect the wellbeing of children. Thus, it identifies both the family and social resources which children may or may not have access to, and that may impact on their development. Five major categories of resources, referred to as resource domains, are presented, namely: income; time; human capital; psychological capital; and social capital. This framework of resource domains is then used to present a range of possible indicators, as a basis for assessing a child's developmental outcomes but which, at the same time, also reflect on family wellbeing.

Indicators of community wellbeing

Social indicators

As described in Chapter 1, social indicators are summary measures which reflect on aspects of social wellbeing which, when produced repeatedly over time, can indicate how social conditions are changing. There are many examples of social indicators used to reflect on the wellbeing of the whole population that can also be used to describe the wellbeing of particular communities, especially when communities are defined in terms of groups of people living in particular geographic areas. Examples of such indicators include: the population growth rate, the unemployment rate, crime rates according to specific offences, the proportions of people whose principal source of income is from government pensions and benefits, and the number of doctors per head of population. However, there are many more and; as illustrated by recent activities in this field both in Australia and overseas;⁵ there has been growing interest in developing indicator sets which help to provide multidimensional views of community strength or wellbeing.

Socioeconomic indexes for areas (SEIFA)

Socioeconomic indexes for areas, as produced by the ABS, are summary measures which draw on a range of information to differentiate between areas that are relatively advantaged from those that are relatively disadvantaged. The information used to construct the indexes is mostly about the characteristics of individuals and households within each area which is available from the Censuses of Population and Housing. Five indexes, named as follows, have been produced for each of the most recent censuses:⁶

Socioeconomic indexes for areas (SEIFA) continued

- Urban Index of Relative Socioeconomic Advantage (limited to areas in urban areas with a population of 1,000 or more);
- Rural Index of Relative Socioeconomic Advantage (limited to areas outside urban areas with a population of 1,000 or more);
- Index of Relative Socioeconomic Disadvantage;
- Index of Economic Resources; and
- Index of Education and Occupation.

Each index has a different set of underlying social and economic variables and the last three have been produced for all Census Collections Districts (CDs) in Australia. Index scores are also available for larger geographic areas such as Statistical Local Areas. However, the scores become less useful at higher levels of area aggregation as the extent of heterogeneity among population groups also increases with increases in the spatial unit.

DATA SOURCES

There are a range of national level data sources that provide insights into family functioning and individual wellbeing. However, it should be noted that a person's relationship within their household and their marital status are two variables collected in all ABS household based collections. These collections include the Census of Population and Housing and surveys concerned with health, education and training, labour force activity, time use, income, housing, crime and safety, and Indigenous people, to name a few. Most of these collections also identify families and households by type, thereby extending the opportunities for analysis of wellbeing at the person level to the wellbeing of specific types of families and households. As they are repeated, these collections allow an examination, across time, of the changing representation of various family and household types in particular circumstances. A survey of particular value in providing regular time series data on the prevalence of different household and family types is the ABS Labour Force Survey (referred to in more detail in Chapter 6 — Work) from which detailed family estimates are published on an annual basis.

If measured in terms of the circumstances of groups of people living in particular geographic areas (such as their average income, the level of unemployment, or their experience of crime), insights into various aspects of community wellbeing, can also be derived from these same data sources. Household surveys usually only allow such measures to be produced for areas involving large numbers of people. However, in the case of the data from the Census of Population and Housing, and various sources of administrative data, indicators of community wellbeing can also be obtained for small areas all over Australia.

Child Care Survey (ABS)

Child Care is an ABS household based survey run every three years. It provides information on the supply of and demand for child care for children aged less than 12 years. Information is also available on the types of care used, cost of care, receipt of the Child Care Benefit and the working arrangements of parents with children

Child Care Survey (ABS) continued

under 12 years of age. The purpose of the survey is to monitor changes in the way families balance work and family responsibilities, and to establish and monitor child care use patterns.

Disability, Ageing and Carers Survey (ABS)

This survey is run approximately every five to six years, and includes households and care accommodation. The last survey was conducted in 1998. It provides information on people with disabilities, older people and people who provide assistance to others with disabilities. This includes information on the type and severity of disability, the underlying health condition, the difficulty people with disabilities have with everyday activities, the assistance they need, their sources of assistance and their unmet need. Information on social and community participation is collected for people with a disability and/or those aged 60 years and over. The survey also includes information on schooling and employment restriction for people with a disability, characteristics of carers, relationships between care givers and recipients, and on some of the effects of caring on carers. The survey includes children under 15 years of age.

Survey of Families in Australia (ABS)

This survey was run in 1992. It provided information on the characteristics of families and family members, and the nature of family support. The structure and needs of families were identified to enable an understanding of the specific types of support required in relation to employment, income, housing, child care, personal care/home help, education and transport.

Family Characteristics Survey (ABS)

This survey is run approximately every five years, with the last survey being run in 1997. It provides information on the social and demographic characteristics of families and households, with particular emphasis on the characteristics of children, such as their age and family relationships. It also provides detailed information on family composition. A population group of special interest in the survey are children aged 0–17 years in step, blended and one-parent families. For these children and their families, information is available on family structure, child support, parental care arrangements and visiting arrangements.

Time Use Survey (ABS)

This survey was last run in 1997 and is next planned for 2005. It provides information on the daily activity patterns of people in Australia. Information is provided on the differences between men and women in patterns of paid work and unpaid household and community work. The Time Use Survey also provides information on care for children and frail, sick or disabled people. The nature of family interactions can be explored using Time Use data as activities can be classified by who was present while the activity was occurring.

ABS uses data from the Time Use Survey to calculate the value of unpaid work. These estimates are based on domestic activities, voluntary work, care activities, and the purchasing of goods and services.

Voluntary Work Survey (ABS)

This survey is run approximately every five years, with the last survey being run in 2000. It provides information on participation in unpaid voluntary work through an organisation or group. Information is collected on the characteristics of volunteers, time spent volunteering, the perceived benefits of volunteering, reasons for volunteering, types of organisations with which the voluntary work is associated, and types of voluntary work activities. This survey excludes care and support provided to family members, these dimensions of care are available from the Disability, Ageing and Carers surveys and the Time Use surveys.

Census of Population and Housing (ABS)

The five-yearly Census provides information on the number and key characteristics of people in Australia and the dwellings in which they live. The Census is an important source of family and community statistics as it provides information collected on a standard basis for the whole country, and presents this information in a detailed classification of living arrangements and family composition and detailed classifications of geographic areas which may be used to represent communities.

Family and Household Projections (ABS)

First produced for the period 1996–2021, and likely to be produced following the supply of information from each Census of Population and Housing, the ABS has produced projections of numbers of households and families categorised by type, at the national level and for each of the States and Territories. The projections, based on an analysis of previous trends in living arrangements and assumptions about possible future changes have been provided for a 25 year projection period. Those produced for the period 1996–2021, present various scenarios (referred to as series A, B and C) which each assume different rates of change in living arrangements.

Administrative data

The ABS also compiles statistics which have been generated as by-products of the administrative processes of government. Areas in which these statistics provide information about families and children include birth and death registrations (including infant mortality and causes of death), marriage and divorce registrations (including data on children affected by the divorce of their parents) and participation in education. ABS publishes information supplied by police forces in each jurisdiction on children who were victims of crime. Other bodies also hold administrative data, for example, family payments data held by Centrelink.

Child Care Census (DFACS)

The Commonwealth Department of Family and Community Services (DFACS) has responsibility for national child care policy, research and data collection through the Commonwealth Child Care Program. The key objective of the Program is to assist families with dependent children to participate in the workforce and the general community by supporting the provision of affordable quality child care.

The Census of Child Care Services has been conducted regularly since 1986. The purpose of the Census is to collect information on the characteristics of the children, parents and staff in Commonwealth funded child care services. The information has

Child Care Census (DFACS) *continued*

been essential for monitoring the growth and operation of services, determining how the objectives of the Commonwealth Child Care Program are being met, and assisting in policy formulation and planning. Data from the 1999 Census of Child Care Services is now available and contains the most recent information on child care services funded under the Commonwealth Child Care Program. This information is expected in future to be available from administrative sources.

Home and Community Care

The Australian Institute of Health and Welfare (AIHW) has played a central role in reviewing the Home and Community Care (HACC) program, with the aim of improving the amount and quality of information available concerning the HACC program. AIHW developed an instrument to monitor quality of care using the HACC Service Standards, and also a national minimum data set for the HACC program, both implemented in recent years. The HACC minimum data set is designed to provide information about the characteristics and circumstances of people assisted through the HACC Program, and the extent and nature of assistance they receive. The HACC Data Dictionary 1.0 has also been developed by the AIHW under the auspices of HACC officials.

Children's Services

The AIHW contributes to the development of consistent national data on children's services (child care and preschool services) in conjunction with the Children's Services Data Working Group which is sponsored by the National Community Services Information Management Group (NCSIMG).

Disability Services (AIHW)

The Commonwealth State Disability Agreement Minimum Data Set (CSDA MDS) collection was set up in 1994 as a 'snapshot day' data collection. The collection covers all services either funded or directly provided under the umbrella of the CSDA, with each jurisdiction having the responsibility for their own collection phase using nationally agreed standards and definitions. As well as being used within each jurisdiction for planning purposes, data are forwarded to the AIHW for national collation and analysis. The establishment of the minimum dataset allowed complete, nationally comparable data on disability services funded under the CSDA to be collected in Australia for the first time. Since its inception, the CSDA MDS collection has comprised both:

- a set of data items and definitions that the National Disability Administrators agreed were significant for national collation and reporting purposes under the CSDA; and
- an agreed method of collection and collation.

The CSDA MDS is currently being redeveloped, with the new collection anticipated to be introduced by July 2002.

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CHAPTER **4** **HEALTH**

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How does health relate to individual wellbeing?

Good health benefits individuals both directly and by assisting them to succeed in other areas of life. Conversely, people's personal, working and social lives may be compromised or disrupted through ill health or disability, and the pain, isolation and inconvenience associated with these. There can also be substantial financial costs associated with ill health, both in terms of treatment cost and loss of income. To the extent that illness or disability restricts people's actions, their freedom and lifestyle may also be curtailed.

How does health relate to wellbeing at the societal level?

Communities have an interest in optimising the health of their members, as good health can assist people to contribute to society in a variety of ways. A community's sense of optimism and achievement can be enhanced by positive community health outcomes, or damaged where there is widespread poor health within the community. While there will always be a need for communities to respond to the ill health of their members, there are costs associated with maintaining health service infrastructures.

What are some key social issues?

- Reducing incidence of disease, disability, injury and premature mortality, and protecting and improving the physical, mental and social health of the population.
- Ensuring all population groups have adequate access to health facilities and services.
- Understanding what socioeconomic and environmental factors influence good or poor health outcomes, and promoting healthy behaviours and minimising risk behaviours
- Developing health policy, promotion and intervention activity and monitoring these
- Monitoring trends and patterns in health and giving priority to the most prevalent causes of death and disability.
- Ensuring health care is funded and affordable through establishing an appropriate balance between government support and private health insurance membership.

What are some key definitional challenges?

Health relates to both the physical and mental state of a person, and its meaning will vary according to individual or community expectations and context. Good health is reflected not simply in the absence of disease or disability but is a continuum that includes positive states of wellbeing. A person's health is not static, but is continually being influenced by many personal, behavioural and environmental factors, by life cycle change, and by the accumulation of behaviours and choices over a lifetime.

What are the main measurement issues?

- Due to variation in how health is perceived, and to people's lack of knowledge about their own health, self-reported health data has limitations. However, there are cost and privacy issues associated with collecting more objective health data via clinical tests.
- Broad level mortality indicators may not identify the health needs of small groups and do not necessarily describe the extent to which the population is disabled by ill health.
- Diagnosed disease may not reliably indicate a person's health, as diseases can exist at an underlying level. Similarly, current health status measures alone may not indicate future trends or the behaviour patterns of individuals responding to disease. In these cases, measures of lifestyle behaviours (e.g. smoking, exercise) can be useful health indicators.

DEFINING HEALTH

Health is a concept that relates to and describes a person's state of being. It is therefore highly subjective. Good health means different things to different people, and its meaning varies according to individual and community expectations and context. Many people consider themselves healthy if they are free of disease or disability. However, people who have a disease or disability may also see themselves as being in good health if they are able to manage their condition so that it does not impact greatly on their quality of life. People living in areas where there are high levels of ill health, or extreme health problems, may see themselves as relatively healthy, even if they have some illnesses or complaints. And people with relatively minor ailments may perceive themselves to be in poor health if they are aspiring to a greater level of wellbeing than is suggested merely by the absence of disease.

Health is often defined in terms of its negative aspect (e.g. ill-health), and a key focus of the health area of concern is the presence or absence of sickness, disease, injury and disability within the population. However, this is by no means the full story. The World Health Organisation (WHO) definition of health suggests that health is a continuum, and extends the notion of health to include states of positive wellbeing. Health is 'a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity'.¹

Dimensions of health

This definition also acknowledges that there are a number of dimensions to health — physical, mental and social. Thus the optimal functioning of a person's physical body is only one aspect of their health, and only one factor, in the domain of health, that determines their wellbeing. A person's mental or psychological state is also an important aspect of their health, and the quantity and quality of an individual's social connections and support networks can fundamentally influence their health. Over a lifetime, reserves in one area of health may be drawn on to supplement other areas in difficult times. For example, the physical health deterioration experienced by older people can be partly ameliorated or balanced by positive reserves of mental health, and/or a supportive social environment. Two major dimensions of health — physical health and mental health — are discussed below.

Physical health — Physical health relates to the functioning of the physical body. There are many different diseases, injuries and disabilities that can impair this functioning to a greater or lesser degree. Each of these diseases or disabilities has features and processes associated with it that become relevant to defining the health of individuals or populations affected by them.

Mental health — Mental health relates to people's emotions, thoughts and behaviours. As with physical health, mental health can be impaired to varying degrees. Generally, a person with good mental health is able to handle day-to-day events and obstacles, work towards important goals, and function effectively in society. However, even minor mental health problems can affect everyday activities so that individuals cannot function within their family and community as they would

Dimensions of health *continued*

wish to, or are expected to. Over a lifetime, these problems may include day to day anxieties, work-related stresses and normal reactions to adverse life events. However, more serious and long term mental health disorders may be diagnosed in an individual when they reach a specific level of personal dysfunction.

These two dimensions of health — physical and mental — interact with one another. For example, a person's physical health can influence their mental state. People with illness or disability may feel depressed or anxious in relation to their disease or disability, and its implications for their life. More directly, their condition, or their medication, may be associated with chemical changes that influence emotions. Conversely, a person's mental health can influence their physical state. Positive emotions may contribute to a person's ability to recover from disease, while unhappiness, alienation, or the lack of a strong sense of purpose may be factors that make the human immune system more vulnerable to disease. Certainly people's outlook on life can affect lifestyle choices, which in turn influence health status.

Factors influencing health

In many cases, the reasons why particular individuals contract particular diseases may be unknown. A disease process may begin as a person's physical resources deteriorate with age, or it may emerge at any age with no clear cause. There are, however, a number of factors that appear to influence health outcomes, or play a role in influencing the progress of a disease. Some of these factors are beyond the control of the individual, such as their age, sex and genetic make up. However, many other factors are controllable to some degree, for instance, lifestyle behaviours such as smoking, diet, physical activity and alcohol consumption. The health status of an individual may also be influenced by the social, economic and physical environments in which they live. Factors affecting health can interact with one another. For example, dietary factors may interact with genetic factors to increase the likelihood of someone developing diabetes. As all of these factors can either improve or reduce the health of individuals, they are fundamental to understanding the health status of the population, or of particular groups, and how this can be effectively influenced. Risk factors that can be modified are of particular interest, as they can play an important role in the prevention of ill health in the community.

Lifetime health

Overall, the physical health of most individuals will deteriorate over the life course in a relatively predictable way due to the ageing process. However, against this background of slow decline, most people's health status will fluctuate considerably. At a subtle level, people's health may change from moment to moment, or day to day. They are likely to experience bouts of ill-health: many common illnesses are episodic and have a short term impact on people's lives (e.g. influenza, glandular fever, or broken limbs). People may also experience longer-term disability due to diseases such as cancer, clinical depression or diabetes, or resulting from serious injuries. People may change their lifestyle behaviours in response to the ageing process or to conditions they develop, or because their health-related knowledge or attitudes change. Also, the environments and circumstances surrounding an individual will change. People may change jobs or move interstate or overseas, and

Lifetime health *continued*

their family structures will shift, each of these bringing different kinds of stresses and benefits. Importantly, health risk factors can accumulate over a lifetime to increase propensities towards particular health outcomes, including propensities towards specific diseases. Thus an individual's genetic background and their early childhood dietary patterns may affect how healthy they become in later life. Smoking, excessive intake of alcohol, physical inactivity, or even stress and anxiety, can affect not only a person's immediate health, but also their future health outcomes, particularly if sustained over long periods.

Similarly, for many diseases and injuries, the onset of related conditions may be gradual, go unnoticed, or remain undiagnosed for years. Early symptoms might be present but ignored or misinterpreted. Only when symptoms become significant might a condition be identified and appropriate services sought. And disability resulting from a disease or injury can worsen over the years a person lives with it.

For these reasons, a person's health status is not always adequately described by their current diagnostic status. Rather it may need to be considered in terms of their present and past experiences and lifestyle, which can be a guide to underlying health propensities, and future health patterns.

Impact of disease and injury

Even when an individual has been diagnosed with a particular condition, the implications of having that disease will vary according to factors such as the type of illness or injury and the characteristics of the person with the illness. For some conditions, the person would not be expected to live as long as they would without the disease. But, where premature death is unlikely, the extent to which the condition will cause the person suffering and/or result in disability is the main focus of concern. They may be mildly or severely affected, or possibly mildly affected physically, and severely affected mentally, or vice versa. The duration of a condition also will determine the extent to which it affects the lives of those suffering it. Thus concepts relating to severity and duration of disability need to be taken into account in any meaningful definition of the health status of an individual.

Similarly, governments and health researchers need to understand not only which diseases are the major contributors to premature mortality in the population, but which cause the greatest amount of ill health and disability. For example, although depression is not a leading cause of death, it is a leading cause of disability. Using both these measures, an understanding of which diseases represent the greatest burden to the population overall can be achieved. Thus, studies of the burden of disease and injury estimate, for specific diseases, both the number of years of life lost due to premature mortality, and the number of years of healthy life lost due to associated disability. These studies may also incorporate assumptions about the average duration and level of disability associated with specific diseases, compiled to provide population estimates of these. Health risk factors can also be assessed in terms of their contribution to the overall burden of disease for the population. For instance, smoking is associated with a high disease burden, both in terms of the disability it can generate, and in terms of premature mortality.

Integrating health approaches

The WHO definition quoted above was formulated as far back as 1946, and movement towards viewing health as a dynamic between different aspects of life has gained momentum over the 20th century within medical, statistical and social paradigms. For example, the idea that diseases have a single cause has been gradually replaced with the view that a range of lifestyle and other factors can combine to contribute to disease. Communities and governments have begun to consider health prevention or intervention strategies that draw on broader community areas, such as family and community networks, education, recreation and the arts. There is increasing interest in integrating health services across general practice, community health and local government services. Interest in linking data about social and economic context with mortality rates and other broad level health indicators is also growing.

This movement towards integration, both in terms of understanding health processes and responding to health problems, has paralleled growing interest in alternative and holistic health treatments and approaches. Modalities such as nutrition, massage, meditation, acupuncture, physiotherapy and natural remedies (e.g. herbs) are continuing to grow in popularity, and are seen as allowing practitioners to take a broader approach to improving the health of individuals, and preventing the onset of ill health. In some areas people's health is being considered as a holistic phenomenon – relating to their whole person and context, rather than just to their physical or mental fitness.

HEALTH AND WELLBEING

Individual wellbeing

People with physical or mental illness may, very directly, be suffering pain, discomfort, and/or isolation. Illness also has indirect effects on individual wellbeing. There are costs involved in paying for treatments, and poor health may result in a loss of income. Bouts of ill health may disrupt family life or social networks, or curtail plans for travel, study or career. To the extent that a person's health is limited over the long term, life choices may also be limited. Long term poor health can affect the social capability of an individual, including their ability to interact with the social and government institutions that provide resources, care and support within the community. A common and long held perception is that health is a fundamental ingredient for a happy life, and an important foundation for recovery from misfortune. Certainly the wellbeing derived from a regular income, a comfortable home, a loving family or a good education may be compromised by poor health.

Wellbeing of society

Because all people fall ill at some time during their lives, and become ill or frail in their old age, there will always be a need and obligation for communities to respond to the ill health of community members. Beyond this necessary level of care, the community has a strong interest in optimising the health of its members, as good health assists people to contribute to society in a variety of ways. In addition, health problems represent direct costs to the community, both in terms of financial and human capital. At an extreme level, large scale disease epidemics can threaten

Wellbeing of society *continued*

social functioning and order. At a more normal level, productivity is affected by working days lost through ill health, and the cost of maintaining health service infrastructures can be considerable.

High levels of good health can be an indication that the social justice goals of a nation or community have been achieved to some degree. Conversely, evidence of poor health within the community in general, or among specific population groups can be a concern, and may reduce optimism within those communities. Families, communities and other elements of society can be affected where poor health is associated with addiction or antisocial behaviours, linking health issues to other areas of social concern such as family and community and crime and safety.

SOCIAL ISSUES

Ageing of the population

Over the last century in Australia, there was a substantial increase in average life expectancy. In the first half of the century this was driven by a decline in infectious diseases which resulted in a significant drop in infant mortality. In the second half of the century, reductions in death rates occurred more in older age groups, mainly due to improved treatment for, and prevention of, heart disease and associated diseases. More people are now living into old age than ever before. However, many of these people are living with degenerative diseases such as heart disease and cancer, with non-fatal conditions such as arthritis, or with disabilities such as loss of hearing and sight. As medical treatments continue to improve, and the baby boomer cohort begins to reach older age groups, issues have emerged that concern the number of people living into old age with disability, and how their quality of life can be supported. Government and community goals have begun to shift toward supporting, not only long, but healthy lives. There is concern that pressures on the families and friends of elderly or disabled family members may increase in response to government initiatives aimed at maintaining people within their community as long as possible (see also Chapter 3 — Family and community.)

Preventable deaths

Although a greater proportion of people now live into old age, many premature deaths and, in particular, many preventable deaths, still occur. These deaths are often age related. For example, young men are more prone than any other group to die in motor vehicle accidents, by suicide or by accidental drug overdose. Young children are susceptible to accidental drownings or poisonings. The fact that these premature deaths still occur, and in some areas are increasing, is of concern to governments, communities and families alike.

Promotion and prevention

Response to ill-health and injury has widened over the last few decades to include active promotion of positive health behaviours and intervention to prevent or delay the onset of disease or disability. This has been largely driven by acknowledgment of the connection between certain risk factors and disease. For example, discouraging smoking has long been a focus of health policy makers, while enhancing the protective factors and reducing risk factors for mental disorders are more recent

Promotion and prevention *continued*

policy developments. Prevention and promotion initiatives are not only aimed at behaviours with long term health implications, but can target behaviours that have more immediate health outcomes. For example, excessive alcohol consumption is linked to long term health conditions but can also be a more immediate catalyst in relation to mental health episodes, drug use and motor vehicle accidents. Health promotion and prevention initiatives are often complemented by, or implemented through, policy decisions taken in other portfolio areas. For example, campaigns aimed at preventing accidental drownings are supported by local government legislation for child-proof fencing around swimming pools, and health benefits flow from increased taxation on cigarettes.

National Health Priority Areas

In order to focus health promotion and prevention efforts, the Australian Health Ministers have identified six health conditions they consider need to be addressed as a high priority. These are referred to as National Health Priority Areas (NHPAs), and are:

- cardiovascular disease;
- cancer;
- injury prevention;
- mental health;
- diabetes mellitus; and
- asthma.

These areas have been specifically identified as they are all major causes of death and disability; and together account for the majority of the burden of disease in Australia. Several of these conditions, namely cardiovascular disease, diabetes and certain cancers, have modifiable risk factors in common (e.g. poor diet, smoking, physical inactivity). Hence, focus on the NHPAs has identified areas where health promotion activity might have the widest benefit. Associated issues revolve around the variation in prevalence of NHPA conditions across different population groups and regions, and the effectiveness of public health campaigns relating to the NHPAs.

Socioeconomic inequalities

There is an increasing body of evidence to suggest that socioeconomic conditions can influence health status. In recent years this has become a health issue rather than simply being a sociological phenomenon. Living in poor socioeconomic conditions is often associated with lifestyle behaviours known to undermine good health, which has led governments, researchers and community groups to attempt to address the wider socioeconomic determinants of health. There is seen to be an ongoing need to address fundamental questions such as whether health differentials are narrowing or widening between particular groups in the community and how social and economic factors influence these inequalities. While Australians generally enjoy a relatively high standard of living, some groups within Australia have fewer socioeconomic resources on which to draw in times of need. Not only does this jeopardise effective recovery from disease, but it has implications for the effectiveness of health prevention measures.

Performance of the health system

The broader Australian health system provides health care services in a range of settings as well as developing and supporting promotion and prevention activities. Consumers, services providers and governments are interested in the performance of the health system and, in particular, in the performance of health services. Levels of unmet need, factors determining service usage, and reasons alternatives may be preferred, are of interest. Of equal concern is the capacity of services to deliver help to those using them and the ability of health care services to deliver appropriate care which ensures patient safety. Providing or improving access to health services for all community groups – whether that be in terms of effective education, improved transport, disability access, through ensuring services are culturally appropriate or providing language assistance – is considered important in encouraging the use of services and improving their effectiveness. The potential for improved efficiency of, and public access to, health services arising from integrating and coordinating private, community, and government health care is a recent area of interest.

Health costs and financing

The substantial financial costs associated with supporting the health system, borne by individuals and the community, is an ongoing area of public concern. Of key interest is the sustainability of the health system over the long term, particularly as the population ages and new health problems arise. Another area of interest is how cost and effectiveness goals can be appropriately balanced. For instance, immunisation is a relatively inexpensive prevention measure, which reaches a high proportion of the population. Other health treatments can be more costly, and may benefit fewer people.

Debate often surrounds the appropriate allocation of responsibility for health costs. In other words, there is a question of how these should be shared among governments, communities, private organisations, and individuals. In the context of a changing private health insurance environment, there is interest in the characteristics of people who have private health insurance, and how and why these people differ from those who do not have health insurance. Private health insurance membership may not only affect the affordability of health care and health actions, but may influence use of health services, and may be seen as an effective medium through which healthy lifestyles can be promoted.

Workplace health and safety

The effective implementation of safe and healthy work practices and conditions is of general concern. Health problems caused by conditions in the workplace impact on a number of groups. For example, injured or sick workers may suffer pain and disability from workplace related injuries or illnesses, and may lose income. Employers may face costs associated with lost working days, lowered productivity, and workers insurance liability. Surrounding families, businesses and communities can also be affected. The incidence of work-related injury and disease, effective preventative measures and appropriate compensation and insurance regulation are all related areas of interest.

POPULATION GROUPS

A variety of population groups have specific health needs over and above the general health needs of the population. These groups may be affected by one or more larger social issues such as poverty, family dysfunction, discrimination or geographical isolation.

Infants and children

The first few developmental years of life can play a critical role in establishing good health and the skills and attitudes that allow an individual to achieve optimum health throughout their life. Conversely, low birth weight, malnutrition, and repeated childhood infection can impair an individual's long term health. Investing in the health of children is seen by governments and communities as a practical way of improving the health of the population. Children's health needs centre around protecting them from harm experienced in unsafe environments, where the risk of poisoning, accidents, falls, drownings, burns or scalds is increased; or harm caused by exploitation, neglect, abuse or violence. Children's health can also be protected through immunising them against various communicable diseases.

Young people

International conventions and covenants stress the rights of young people to all manner of protection and facilities. However, young people aged from 15 to 25 years are in a state of transition from childhood to adulthood and from education into work, and may be faced with an uncertain future, with limited work opportunities and insecure personal relationships. There is concern that such life predicaments increase the likelihood that young people will be susceptible to health risks associated with their age group. These include a vulnerability to certain mental illnesses, harmful alcohol, tobacco and other drug use, self harm and suicide, sexually transmitted diseases, and injuries caused by car accidents. Information is needed on the factors that can prevent young people's vulnerability to these health problems, and promote healthy social functioning, good diet and nutrition, and physical activity for young people.

Women

While women have a longer life expectancy than men, they generally have higher rates of illness during their lifetime. With government and community acknowledgment that better health outcomes for women need to be achieved, women's health has emerged as an area receiving considerable attention. Hence, data is often needed to inform the development and monitoring of health clinics that specialise in physical health areas specific to women (e.g. gynaecological and reproductive areas), of screening programs for the early detection of breast and cervical cancers, and of facilities that treat those symptoms of menopause and osteoporosis that are debilitating.

Men

Focus on women's health has, by implication, brought men's health issues to the attention of the community. Men's lower life expectancy is of overall concern. However, there are a number of more specific risk factors and health determinants affecting men's health. Men visit doctors and other health professionals less

Men continued

frequently than women, and are therefore more susceptible to complications arising from treatable diseases due to postponement of medical advice and treatment. Men are also often working in professions where there are greater occupational health and safety concerns. Young men are a particular group of concern. This group have higher death rates than young women and are at greater risk of death or injury resulting from accidents or self harm.

Older people

Increases in the number and proportion of older people in the population, and the fact that the health needs of older people are qualitatively different than those of the population generally, present challenges in the areas of aged care policy and delivery. Although many older people are in good health and lead active and fulfilling lives, many others live with limited physical mobility or deteriorating mental alertness. A high proportion of older people need to take a cocktail of medications requiring careful monitoring. Whether older people have access to services that support their life choices is also a social concern. These services may be provided by non-government programs such as Meals on Wheels or by government health and community services designed to support older people in their own homes or in residential aged care units.

Indigenous people

Aboriginal and Torres Strait Islander people generally have poorer health than other Australians, against a range of indicators. They have a shorter average life expectancy, higher mortality and morbidity rates, and experience higher rates of infant mortality than the rest of the Australian population. There is a widespread effort to improve understanding the complex range of socioeconomic, environmental and historical factors that contribute to these health outcomes. Some of these factors include low socioeconomic status (e.g. in the areas of income, education and employment), poor living conditions, poor access to health and safety services and fresh food, and harmful alcohol consumption. The social and cultural functioning of Aboriginal and Torres Strait Islander people, including their dietary and other lifestyle patterns, was significantly disrupted by colonisation, and there is an expressed need to examine how the repercussions of colonisation continue to affect the health of Indigenous people. There are also substantial issues relating to collecting accurate information about the health of Indigenous people and using this effectively in assisting Indigenous people.

People in rural and remote areas

Since the early 1990s, various initiatives have been taken by both Federal and State governments to address differences between the health outcomes of people living in rural and remote areas and those of people living in other parts of the country. Although these differences can be partly attributed to the relatively high proportion of Aboriginal and Torres Strait Islander people living in rural and remote areas, there are a range of health needs specific to rural and remote communities that are the same for all residents. These are related predominantly to social isolation, distance and access, e.g. to diagnostic, treatment and support services, and health specialists. Farming accidents and other accidents associated with rural life are also of concern.

FRAMEWORKS

There are a range of frameworks used both within the ABS and external to the ABS in the measurement of health. These have been developed by a number of organisations with an interest in health, and each framework reflects the differing purposes and perspective of those organisations. For instance, health frameworks are used by researchers, clinical health professionals, administrators, social scientists, health economists, and policy makers. Thus some health frameworks are centred on elements that make up the Australian health system, while others are centred on the biological processes of ill health, the causes of disease and disability, or on factors that affect health.³

There are two broad types of health frameworks – those which endeavour to identify the relationships between various health related factors, and those which primarily provide a reporting structure. Relationship based frameworks assist in analysis of the associations between different aspects of health within specific areas of study. These frameworks take into account the latest medical and statistical evidence about health and the factors affecting health. Some health frameworks which explore relationships include:

- Conceptual Framework of Health developed by AIHW;³
- Preventing Chronic Disease: A Strategic Framework (NPHP 2000); and
- Framework of Socioeconomic Determinants of Health (Turrell et al, 1999).

Reporting based frameworks do not focus on relationships, rather, they present a comprehensive listing of the factors and sub-factors involved in particular areas of health (including, for example, factors seen as affecting health). They are often used to identify gaps in the health information system, and to support the development of a comprehensive set of indicators for reporting on health. Frameworks of this type used in Australia include:

- National Health Information Model (NHIM);
- National Health Performance Framework (NHPC 2000);
- Framework of Performance Indicators for Public Acute Care Hospitals (SCRCSSP 2000); and
- Child Health Information Framework (AIHW).

The National Health Information Management Group's (NHIMG) National Health Information Model (NHIM) provides a structure for the NHIMG's National Health Data Dictionary (NHDD), which presents all national standard health definitions. Thus it provides a structure for organising information about the full range of health services in Australia, as well as a range of population parameters. The NHIM was the precursor to the National Community Services Model described in the Family and community chapter of this book.

The National Health Performance Committee's National Health Performance Framework (NHPF) is another key framework. It provides the basis for organising data to evaluate the performance of all aspects of the health system. Later paragraphs discuss this framework in more detail.

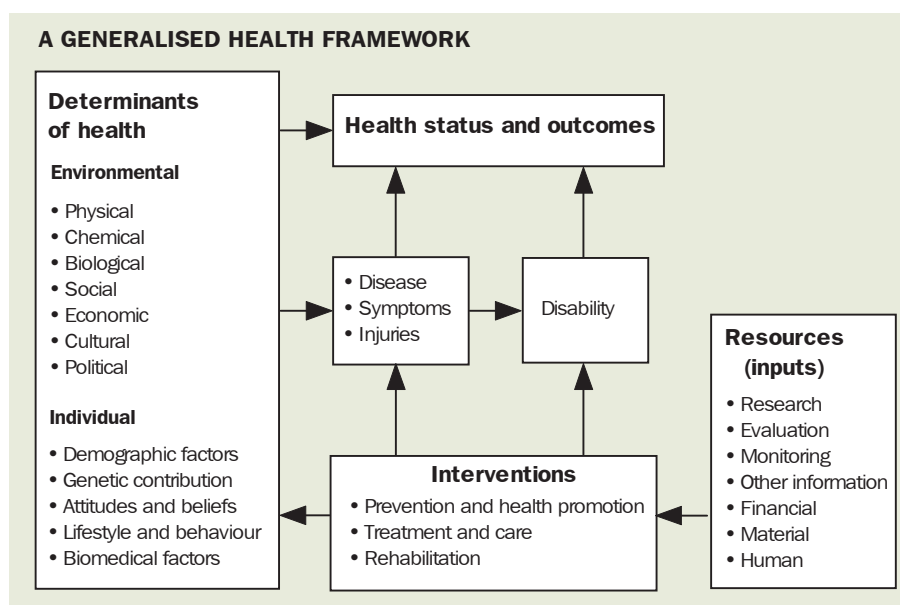
FRAMEWORKS *continued*

Other health information frameworks are currently being developed, including a framework for rural health information.

Health frameworks, whether focused on relationships or reporting, generally have some common elements, and acknowledge the interaction between:

- health determinants, or factors influencing health;
- health status and outcomes (individual and/or population); and
- interventions, or the role of the health system.

These common elements of health frameworks are discussed in more detail in the following sections, and a generalised model covering these elements (based on the Conceptual Framework of Health developed by the Australian Institute of Health and Welfare) is provided below.³ This model also identifies the resourcing, monitoring and evaluation activity associated with health intervention, and some particular aspects of health that warrant attention (e.g. disease, symptoms, injuries, and disability).



Health determinants

Internationally, a number of models have been developed which attempt to map the wide variety of factors influencing the health of individuals, and populations. Generally, these factors can be classified under two broad headings: environmental factors and individual factors. These different perspectives — individual and environmental — need to be considered when selecting data items or research methods for any particular health topic. For example, when data is required on genetic illnesses, small, specific studies relating to individuals may be more pertinent than large scale population studies.

Environmental factors

Physical, chemical and biological factors — The physical environment has always exerted a major influence on health status. Many of the gains made in the area of health in the first half of this century were the direct result of improved water quality,

Environmental factors continued

sewerage systems, and housing. In recent times, concern has shifted to a number of other areas, such as air: and water pollution, toxic and non-toxic waste disposal, the impact of new technology on food and health, contemporary occupational hazards, and pesticide and herbicide residues. Macro-environmental issues such as ozone depletion, global warming and natural resource degradation are also of concern, as these may result in increases in a range of health problems such as skin and other cancers, mosquito-borne diseases, and injury from natural disasters.

Social factors — The important influence of social factors on health is being increasingly recognised. These factors can include the physical and emotional care and support available to people from their immediate family environment, including their access to a good and adequate diet. The degree to which these factors in the family environment are present in early life can be particularly important longer term health determinants. Other social health determinants include the existence of friendships, of positive or negative neighbourhood or workplace relationships, of extended family or other social networks, and participation in social activities such as sports, hobbies or volunteer work. Stress related health problems can arise in the work environment where there is an imbalance between the demands placed on workers and the level of control they have over their work, or where there is an underuse of skills.² Community and neighbourhood factors, such as population density, age distribution, and availability and adequacy of support infrastructures can also influence health outcomes. Other socio-demographic factors, such as employment status, occupation and industry of employment, educational attainment and geographical location are can also be important health determinants.

Economic factors — The economic wellbeing of a region, or family, can affect the amount and quality of health resources and services available to that region or family. Economic factors can also affect standards of housing and adequacy of neighbourhood and community facilities; accessibility of health education, promotional activity, and health care services; and the range of treatments and pharmaceuticals available.

Cultural and political factors — A person's cultural background can influence their lifestyle choices and attitudes towards health (e.g. towards diet, alcohol, drugs and safe sex behaviours), and their level of health related knowledge (e.g. knowledge about the importance of frequent breast self-examination by older women). The political structures and premises on which a society is organised can affect the priorities of health care systems, and thus people's access to health services and health related information.

Individual factors

Different types of individual factors affecting health will be emphasised depending on whether data is needed primarily to establish the health status of the population, identify health trends or outcomes, or to directly inform prevention and promotion activity. Many demographic factors provide insight into health outcomes and trends. Age and sex may be the largest single determinants of health, and country of birth or Aboriginal or Torres Strait Islander status can also be linked to particular health outcomes. However, while demographic information can inform prevention and

Individual factors continued

promotion activity, information about lifestyle behaviours, dietary choices and health related attitudes are key areas of interest in developing health prevention measures, as these factors are modifiable.

Genetic contribution — An individual's genetic make-up plays an important role in determining their predisposition to some diseases (e.g. some forms of diabetes, haemophilia or cystic fibrosis are genetically determined), and to ill health. Many forms of cancers, with the exception of childhood leukaemia, are thought to result from genetic mutations that occur and accumulate during a person's lifetime. As an individual ages the repair mechanisms within their cells break down. Thus, the ageing process combines with genetic propensity to impact on a person's susceptibility to disease.

Attitudes and beliefs — In general, these factors relate to the level and quality of knowledge people have in regard to health, health risk factors, health facilities and health promoting behaviour. While there is some understanding of the way in which people's emotions and beliefs, about themselves, and about their life, affect their health, this area of health is relatively uncharted. Feelings of optimism, self worth and commitment, may affect the lifestyle choices people make, or the conviction with which they embrace and adhere to treatment regimes when they are ill. People's spiritual beliefs may also play a role in health processes and outcomes.

Lifestyle and behaviour — It has long been recognised that the lifestyle of individuals has a significant effect on their health status and potential years of life. In developed countries such as Australia in the last half of the twentieth century attention has focused on risk factors such as over-nutrition, as opposed to under-nutrition (which can still be a concern in relation to some population groups). Dietary issues are also focused on modern nutritional hazards such as those associated with increased consumption of saturated fats and refined foods and sugars. Other risk factors have become more prevalent as lifestyles have changed, for example, reduced physical activity due to the decrease in incidental exercise. Perennial health risk behaviours, such as harmful drug and alcohol use and gambling addiction, have remained of concern to communities and health policy makers.

Biomedical factors — Genetic factors, lifestyle and behaviour, and early childhood and other experiences lead to an individual having a variety of physical properties. Some of these can be linked directly to general health and to particular health conditions. For example, blood pressure, cholesterol and blood sugar levels, and body weight.

Health status and outcome indicators

Health status and outcomes are commonly measured using some key indicators, such as life expectancy and infant mortality. To some extent, the focus of health status measurement will depend on which specific questions are of interest. Questions such as 'How many people have diabetes?' or 'How many hospitals are there in a particular region?' are relatively straightforward and suggest some specific and direct measures. However, a question like 'How healthy are we as a nation?' is less straightforward and can be answered in a variety of ways. Simple indicators of

Health status and outcome indicators *continued*

the presence and prevalence of diagnosed illnesses can be used; or a series of indicators can be compiled that demonstrate both positive and negative aspects of physical and mental health, socioeconomic environments and lifestyle influences. This latter approach would be more challenging. The information might be less practical and cost effective to collect, and analysis of the diverse range of factors involved would be more complex. Some key indicators of the health of the population include:

- life expectancy;
- infant mortality rate;
- age specific death rates;
- disability adjusted life expectancy (renamed Health Adjusted Life Expectancy in 2001);
- prevalence of specific diseases; and
- risk factor indicators (e.g. smoking rates, proportion of people overweight).

Disability

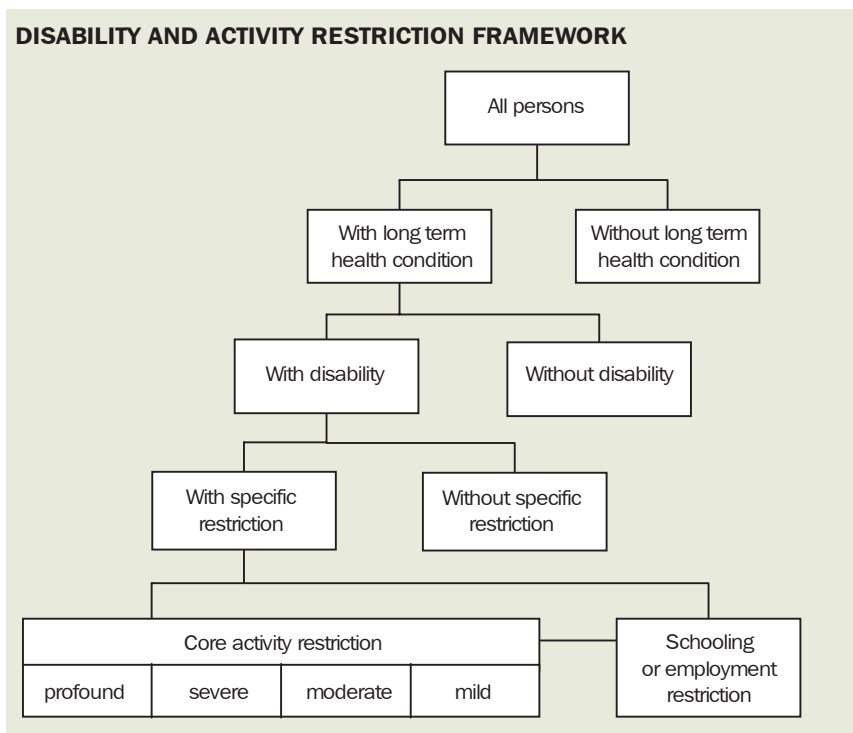
In some cases diseases or events such as birth circumstances, injuries or strokes can lead to a long term health impairment or health condition. Some people experiencing these may find it difficult to perform everyday tasks, or to take part in ordinary life situations such as school, work or community events. If everyday activities are restricted, these people are classed by the ABS as having a disability. Some examples of the impairments or long-term conditions that may result in activity limitations or restricted participation include loss of hearing, difficulty in learning, incomplete use of limbs, breathing difficulty, chronic or recurring pain, or nervous conditions.

Disability is further defined within the ABS in terms of the area of life in which restriction is experienced. Some people may only be restricted in ways that have a minor impact on their lives. Others may be restricted in terms of the type of work they can do, or in terms of learning or schooling activity. Other may be restricted in performing activities that are even more basic in terms of their wellbeing and independence. These latter activities are described by the ABS as 'core activities' and include self-care activities (e.g. bathing, dressing, eating), mobility activities (e.g. moving around home, getting in and out of bed or a chair, using public transport), and communication activities (e.g. understanding and being understood by others).

Another important consideration when classifying disability is the relative severity of a disability. Severity of disability is defined by the ABS in terms of restriction of the core activities mentioned above. A 'profound' restriction exists when a person always needs assistance with core activities. 'Severe' restrictions are defined as those where the person sometimes needs assistance with core activities. Where a person does not need assistance, but has difficulty performing core activities, their level of restriction is seen as 'moderate', and where they have no difficulty performing a core activity, but need to use aids or equipment, they are seen as having a 'mild' restriction.

Disability continued

Core activity restrictions together with restrictions in schooling and employment are referred to as 'specific restrictions' in ABS publications and correspond to the term 'handicap' used in disability surveys prior to 1998. This approach to defining and classifying disability is represented in the diagram below within the context of the total population.

**Interventions**

The generalised framework outlined earlier identifies three main kinds of intervention, namely, prevention and health promotion; treatment and care; and, rehabilitation. However, a key area of interest in relation to health intervention, is monitoring the effectiveness, or performance, of intervention activities. The performance of the health system, particularly the performance of health care interventions, is considered in detail within the National Health Performance Framework (NHPF), introduced by the National Health Performance Committee in 2001. The NHPF identifies three main tiers, and several dimensions within each of these, to provide a structure for measuring the performance of the health system. The three tiers are:

- health status and outcomes;
- determinants of health; and
- health system performance.

The content of the first two tiers of the NHPF relate to matters that have been covered above. The third tier of the framework — health system performance — identifies a range of issues relating to quality of care, equity and context.

Quality

In summary, the NHPF proposes that in order to provide high quality interventions, health care services in all settings need to:

- be effective in achieving desired outcomes;
- be responsive to clients;
- provide continuous care across programs, over time, etc.;
- provide care and services appropriate to the needs of clients;
- be accessible to clients at appropriate times and locations;
- be efficient in achieving results with the most cost effective use of resources;
- be safe, so that potential health risks are minimised; and
- sustain the provision of infrastructure (including workforce), research and monitoring activities.

It should be noted that the perspective on measuring quality in the NHPF varies from that expressed in the Performance Indicator Frameworks adopted by the Productivity Commission for the ongoing Review of Government Service Provision where quality is identified as a component of effectiveness. For example, in the Commission's framework for public acute care hospitals, quality is indicated by patient satisfaction, misadventures and accreditation (SCRCSSP 2000).

Equity

The NHPF also identifies another key goal of the health system as being equity of outcomes. Equity relates to all tiers of the NHPF and can be measured by comparing differentials between population groups of interest (e.g. people of different ages, people living in rural areas, etc.). Under the NHPF, an ultimate goal for the health system is to achieve equal outcomes within each dimension of quality listed above, and for all population groups.

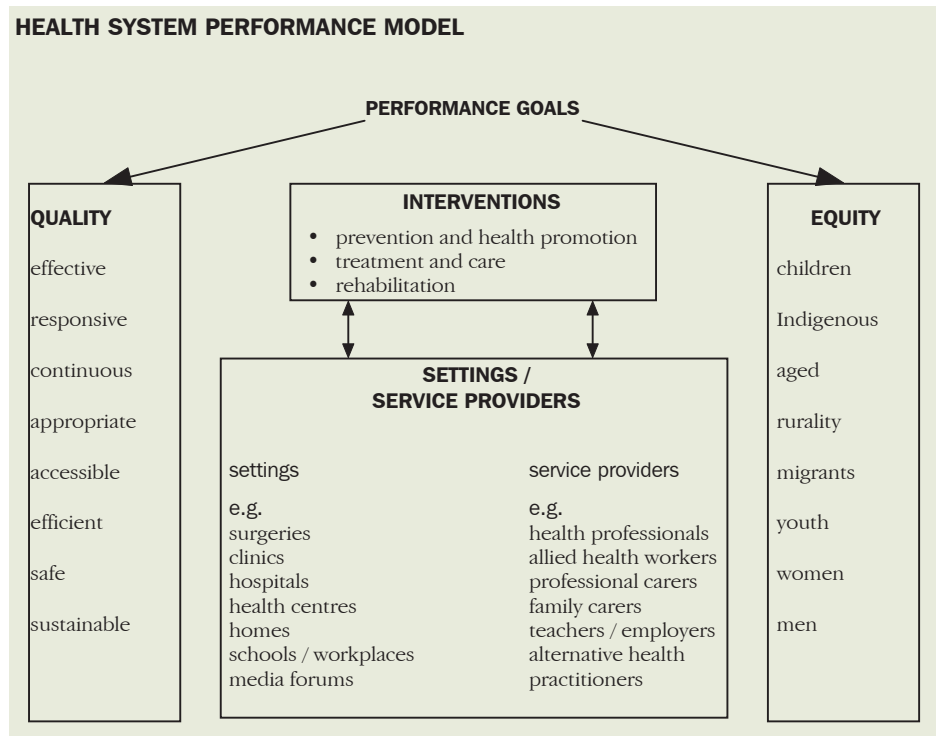
Context

When measuring performance, quality and equity of interventions, a number of contextual elements need to be considered. For example, there are a variety of settings within which interventions take place. These can be health system based (e.g. hospitals, surgeries, health centres, etc.) or community based (e.g. the home, schools, workplaces, etc.). There are also many different types of service providers delivering health services. Again these providers can be working within the health system (e.g. doctors and other health professionals), or operating outside it (e.g. home carers, teachers, employers, etc.). In some instances, a setting, such as a hospital, might also be considered a service provider, as it is an organisational entity with behaviours and characteristics that function at an organisational level. The NHPF can be applied to all settings and service providers.

The following diagram summarises the model that underlies the NHPF and is used for evaluating health system performance. It represents settings and service providers as the context for health system evaluation. It represents quality and equity as key performance goals. It also acknowledges that performance needs to be understood in terms of what health problem is being treated, and what type of intervention is being undertaken (e.g. whether prevention and health promotion, treatment and care, or rehabilitation). The performance model opposite

Context continued

complements the generalised health framework presented above by elaborating on the relationship between interventions and resources, and provides a structure against which progress towards health system goals might be evaluated.



Health transactions

Direct health transactions

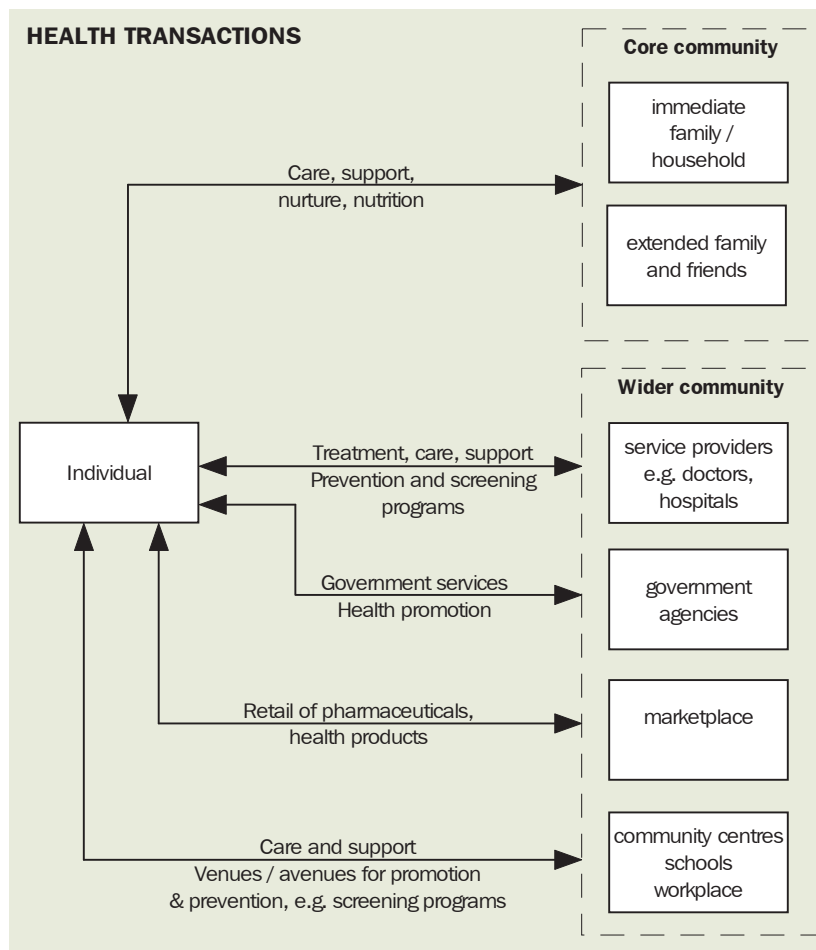
Transactions relating to health can be broadly classified into two types: direct and indirect. Direct health transactions are those where the primary motivation for the transaction is to influence the health of the recipient. Health promotion and ill health prevention initiatives, strategies and programs are direct health transactions, and typically take place between members of the public and government, health service or community organisations. Many direct health transactions revolve around ill health. These include transactions occurring within the core community, where family members care for one another when ill, and transactions within the wider environment (e.g. with health professionals such as general practitioners, chiropractors, pharmacists, optometrists, dentists, counsellors, or with health organisations such as hospitals and nursing homes). Examples of direct health transactions are given in the diagram over the page.

Indirect health transactions

Indirect health transactions do not have health outcomes as their primary motivation. They take place in all arenas of social concern, and many are associated with the environmental health determinants described above. In other words, many environmental factors (e.g. the social environment) affect the health of individuals via transactions. Some indirect health transactions are relatively closely linked to health, e.g. the provision and preparation of food by parents for children. The intention

Indirect health transactions continued

behind other indirect transactions is even further removed from improving one's health, e.g. attending theatre or films; or from reducing another's health, e.g. home burglary.



Health classifications

An Expert Group on Health Classifications was established in 2000 (as a sub-committee of NHIMG) to review the range of health classifications used in Australia. The initiative arose from the need to collect high quality and consistent information across the different forms of care and treatment that health service consumers receive in all settings. The Expert Group includes an independent Chair and representatives of the National Health Information Management Group (NHIMG), the National Community Services Information Management Group (NCSIMG), the Australian Institute of Health and Welfare (AIHW), the Australian Bureau of Statistics (ABS), and the Department of Health and Aged Care (DHAC), as well as experts in specific classifications (some of which are described in the following paragraphs). The Group is tasked with achieving agreement, by June 2002, upon national classifications systems for all sectors where health information is collected in Australia. The review will take into account the structures of major health frameworks such as the Conceptual Framework of Health and the National Health Performance Framework outlined on pages 100 and 101.

Health classifications continued

Countries provide input to the development of international health classifications via WHO Collaborating Centres established for this purpose. AIHW is the Australian Collaborating Centre, and represents the Western Pacific region; with two National Centres for Classification in Health (NCCH) playing key roles. One NCCH provides expert advice on mortality classifications and the other is responsible for morbidity classifications.

Diseases and related health problems

The most commonly used health classification in Australia is the International Statistical Classification of Diseases and Related Health Problems (ICD). As a statistical classification, it is designed to encompass the entire range of morbid conditions within a manageable number of categories. Periodic revisions of the ICD have been coordinated by the World Health Organisation (WHO) since the sixth revision in 1948, when the original focus on causes of death was expanded to include non-fatal diseases. The current version is the Tenth Revision of ICD (ICD-10) and has been introduced into Australia over the last few years.

Causes of death

To classify causes of death, ABS uses the ICD (ICD-10 since 1998), and applies the WHO concept of underlying cause of death. This is defined as the disease or injury initiating the train of morbid events leading directly to death. Classification is based on textual descriptions of the conditions, diseases and injuries reported on the Medical Certificate of Cause of Death (generally provided by an attending physician or coroner, depending on the circumstances of the death). Since 1997, the ABS has coded and retained, not only the underlying cause of death, but all causes and conditions reported on the death certificate.

Diagnosed conditions and injuries

To classify diagnosed morbidity within settings such as hospitals, more detail is required in some cases than is allowed for by the ICD. The National Centre for Health Classifications (NCCH) in Sydney has developed the ICD-10-AM (Australian Modification) for use in clinical settings. (The equivalent version of ICD-9 was known as ICD-9-CM — Clinical Modification). Editions of ICD-10-AM are endorsed by NHMG with the third edition being planned for implementation in July 2002.

Functioning and disability

In 2001, the WHO endorsed a revision of the classification system used for disability related concepts. In this process, the International Classification of Functioning, Disability and Health (ICF) replaced the International Classification of Impairment, Disability and Handicap (ICIDH). The ICF classifies how well people function across three elements of a healthy life: body functions and structures; ability to perform day-to-day activities; and ability to participate in the social domain. Problems in these areas are now referred to as: impairments; activity limitations; and participation restrictions respectively. ICF also identifies environmental and personal factors in recognition of the impact, positive or negative, that these factors can have on an individual's ability to function. The 1998 ABS Survey of Disability, Ageing and Carers used a definition of functioning and disability based on the draft ICF to ensure the data would be consistent with the new international classification system.

Self reported health problems

When individuals are asked to describe their health problems or symptoms, they are generally not capable of providing information which could be coded accurately or precisely to a classification system designed for clinical detail. Hence, a range of classifications have been developed to handle this level of health knowledge. The ABS has adopted the International Classification of Primary Care, second revision, (ICPC2) to code conditions and injuries reported by respondents in their National Health Surveys. The ICPC was designed to code a patient's reason for encounter with health services. It is also used in the Bettering the Evaluation and Care of Health (BEACH) Project, which includes an annual survey of general practitioners.

Injuries

As injuries are a result of external causes such as accidents or violence, many of them are potentially preventable. Hence, they are a focus of policy and programs aimed at reducing the disability and premature mortality associated with injuries in the community. For each injury, information is required on a range of elements including the event leading to the injury, the nature of the injury received, what the person was doing at the time, and where the event occurred. Information is also needed on whether the injury was the result of a deliberate action or was an accident. Hence, experts in this field have been developing an International Classification of External Causes of Injury (ICECI) in close collaboration with the committees and processes which manage the ICD. Although not yet an official WHO classification, it is envisaged the ICECI will play a role in the collection and dissemination of injury statistics in Australia at some time in the future.

Mental health

Clinical diagnoses of mental disorders are generally coded to either the ICD-10, the Classification of Mental and Behavioural Disorders; or the Diagnostic and Statistical Manual of Mental Disorders — 4th edition (DSM-IV). Information collected in the 1997 ABS Survey of Mental Health and Wellbeing was coded to both classifications. In this case, coding to a classification designed for diagnostic data was possible for self-reported mental health data, as clinical diagnoses of mental disorders are largely based on the emotions, thoughts and behaviours described by individuals, rather than on physical examinations undertaken by health professionals.

MEASUREMENT ISSUES**Burden and cost of disease**

The concept of the burden of disease allows governments to set priorities in policy formulation and program delivery. One useful burden of disease measure is the Disability Adjusted Life Year (DALY) measure. This combines, for a particular disease, estimates of loss of years of life due to premature mortality with estimates of loss of healthy years of life due to associated disability. Diseases or conditions which cause more severe disability are given a higher weighting, as their impact on a healthy life is greater. For example, severe depressive episodes are given a higher weight than mild depressive episodes as the former are more disabling for the sufferer. For diseases, such as cancer, which follow a relatively predictable disease process through medically identifiable stages, a range of disability weights are used to measure the

Burden and cost of disease *continued*

burden of the disease through its progress. As this is a population level measure, the weighting factors applied are based on the average disability experienced for a disease or injury, and may not accurately reflect the experience of particular individuals with that disease or injury.

Measuring the burden of a specific risk factor involves a second step; as its burden is accumulated across the range of diseases related to that risk factor. For example, poor diet has been linked with a range of conditions including certain cancers, circulatory diseases and diabetes. Hence, the burden of a specific risk factor is measured by estimating what proportion of these related diseases can be attributed to that risk factor. These attributable proportions are called aetiological fractions (AF), or attributable risks. The estimation of AFs is most difficult where a number of risk factors combine to contribute to a disease, or where the relationship between the risk factor and the disease is not well understood. For instance, estimating the contribution poor diet makes to certain cancers is more complex than estimating the contribution that smoking makes to lung cancer.

Government policy is necessarily concerned with the cost to the Australian health care system of specific diseases and risk factors, as well as their burden on the population. Hence, another important measurement issue is the estimation of the direct health care costs attributable to a specific disease. This estimate needs to incorporate measures such as the prevalence of the disease, including its distribution in terms of age and sex, and the method and cost of treatments. Treatment of any condition can be confounded by the presence of other conditions and, as older people often have a number of conditions, cost of treatment for a specific disease may vary according to age. Direct health care cost estimates do not represent costs for the whole health system as they exclude several areas such as community health services and public health programs. They also do not include the economic impact of absenteeism, lost productivity, burden on family members, etc.

Population surveys

Almost all population surveys rely on collecting self-reported health data from members of the public. The data may relate to the individual's own health status or be provided on behalf of another person in the household, e.g. a parent or guardian may be asked to provide health information about a child. Population surveys collect information from people with all types of health experiences, not only those in contact with health services or with a particular disease or condition. Hence, the reported experiences largely reflect the health experiences of the population from which they are drawn. To maximise the potential of this ability to represent the whole population, these surveys generally collect a set of relevant socio-demographic variables enabling health inequalities across groups to be investigated.

One particular strength of population surveys is their ability to collect data on behaviours and attitudes which may impact on health decisions and future health status. Measures of a range of factors known to influence health can be used to provide valuable advance warning of health issues. For example, increases in physical inactivity and increases in poor dietary habits could be used to forecast increases in

Population surveys continued

the prevalence of heart disease and other linked diseases, say in 15–20 years time. If physical inactivity and poor dietary behaviours are increasing more for some groups than others, those groups may be expected to be affected to a greater degree in the future. Information about the lifestyle behaviours of various population groups can therefore influence health programs and initiatives targeted at those groups, and indicate the success of these.

Ideally, self reported health data based on recall of diagnoses or descriptions of symptoms should be verified by checking medical records. However, it is generally not feasible to undertake the physical examinations required to produce medically verified data as part of the collection process (e.g. bone scans are needed to identify osteoporosis in older women). Similarly, self reported data on health related behaviours are not always reliable. For example, in general, people under-report certain behaviours, such as alcohol consumption. Further, people often report symptoms which can be difficult to code to specific diseases, and they cannot report diseases or conditions that are underlying and have not yet been diagnosed by a health professional. Added to this are issues surrounding how well people are able to recall their disease histories or lifestyle changes. Apart from a number of conditions such as asthma, self reported data on physical symptoms cannot be used to estimate accurately the number of people in the population with an underlying condition. A range of possible measures providing more exact physical data might include height and weight to produce data on obesity (based on measured body mass index), blood pressure to provide data on hypertension, and a series of tests that can be undertaken on blood samples.

Albeit based on self-reported data, most population surveys focus on objective health status and related risk factors. However, they can also be used to measure perceptions about health and wellbeing. The simplest way to do this is to ask people to assess their own level of health in a single question. As discussed earlier, responses will depend on an individual's physical and mental state of being, and on external influences such as their social environment. People may compare themselves with friends or, more broadly, with people in their community. This kind of complex interaction between the individual and external factors cannot be measured, even when more than one question is asked to gain insight into general health and wellbeing. However, several ABS surveys have used modules of questions designed to provide a general measure of physical and mental wellbeing and to give an indication of the level of disability attributed to physical and mental problems.

Analysis issues

Even where population surveys are conducted at frequent intervals, they do not provide information which can be used to attribute cause and effect. For example, while the ABS's National Health Survey collects information on cardiovascular disease, nutrition, smoking and alcohol consumption, it is not possible to use this data to determine causal relationships between these factors, as the data relate to the same point in time. A complicating factor is that, once diagnosed with a disease,

Analysis issues continued

people will often change their lifestyle to a healthier one, so individuals with chronic disease may well be subjecting themselves to fewer lifestyle risk behaviours than people who are healthier, producing an apparent anomaly in the data.

As discussed earlier, it is important to recognise that a snapshot of an individual's health status recorded at one point in time may not reflect the social or economic circumstances they have experienced over their lifetime. While longer term health-related information can be explored more effectively through longitudinal surveys, these are costly and present logistical and sample maintenance difficulties. Another way of adding a time dimension to health data would be to link survey respondent records (with informed consent) to external datasets such as the Medical Benefit Scheme (MBS) or the Cancer Register. Linkage of survey data with administrative datasets such as the MBS would support analysis of, for example, the influence of socioeconomic factors on inequalities in the use of health services. ABS is currently examining the feasibility of data linkage between NHS records and MBS, within the constraints of ABS and other legislation. The project will progress only if an acceptably high proportion of respondents agree to the proposal.

Administrative data

Some collections are based on the administrative records of health services, for example, hospitals provide administrative data about episodes of hospital care. Other collections are registry based, where a central repository of information is notified when certain diseases are diagnosed by health professionals. Disease registries, such as the Cancer Register at AIHW, record the incidence of a specific disease, or new cases of diseases and, over time, will provide an approximate estimate of prevalence of the disease. In addition, essential health information is provided by the system of vital registrations, including registration of deaths, from which causes of death data is compiled by the ABS. As administrative data is based on diagnoses by health professionals, it is generally reliable. However, usually only restricted demographic data is collected so that these datasets have a limited capacity to reveal, for example, differences in the disease profile or service utilisation of population groups. Also, administrative sources focus specifically on people who have made contact with the health care system, a subset of those with health problems or health issues.

To address some of the shortcomings of larger administrative and registry based datasets, there is a substantial body of information collected through health studies conducted by researchers within universities, hospitals and other organisations. Also, with the introduction of the International Statistical Classification of Diseases and Related Health Problems – 10th revision (ICD-10) and the retention of all causes of death named on the death certificate, researchers now have available a wealth of data for exploring disease associations.

DATA SOURCES

Australia has a well developed, although somewhat fragmented, system for collecting health and health related information. The health measures used in different collections will reflect the purpose of the collection, the collection methodology, and the level of knowledge of the data providers (e.g. health professionals or

DATA SOURCES *continued*

members of the public). The available data sources are of two main types: administrative by product, and survey information. There is a range of sources of national health data. The major ABS collections and some representative administrative by product sources are described below. The measurement issues associated with both administrative and survey sources of health data are discussed above.

National Health Survey (ABS)

The National Health Survey (NHS) has been conducted in 1977, 1983, 1989–90 and 1995 with a triennial program from 2001 onwards. This survey collects information about the health status of Australians of all ages, their use of health services, and health-related aspects of their lifestyle. It obtains data on all types of health conditions, with a focus on the National Health Priority Areas described earlier in this chapter. In addition, data is collected about general health and wellbeing, women's health issues, behavioural risk factors (such as smoking), the use of health services and medications and days of reduced activity due to illness conditions. A small Indigenous supplementary survey is being conducted for the 2001 NHS, with a larger Indigenous supplement planned for the 2004–05 NHS and every second NHS thereafter.

National Nutrition Survey (ABS)

This dietary survey was a joint project between ABS and the Commonwealth Department of Health and Aged Care (DHAC) (formerly Health and Family Services). It was conducted on a sub-sample of respondents in the 1995 NHS and provided information for people aged two years and over from urban and rural areas in all States and Territories. Detailed data on food and beverage intake was collected using a 24 hour recall methodology, covering the day before interview. In addition, a range of physical measurements such as height, weight, waist and hip circumference and blood pressure were taken. Additional information was collected on food-related habits and attitudes, and the usual frequency of consumption of selected foods over the previous 12 months.

The data available from this survey includes socio-demographic information, body mass index and blood pressure, daily intakes of energy and macronutrients (such as carbohydrate, fat and fibre), selected micronutrients (such as thiamine and calcium) and the food sources of these nutrients.

Mental Health and Wellbeing Survey of Adults (ABS)

This survey, conducted in 1997, with funding support from the DHAC was designed to provide estimates of the prevalence of major mental disorders in Australians aged 18 years and over. Information was collected on a range of demographic and socioeconomic characteristics, chronic physical conditions, disability associated with mental disorders, health service use for a mental health problem, and perceived need for health services for a mental health problem. Data relating to mental health disorders was collected using a World Health Organisation endorsed instrument, the Composite International Diagnostic Instrument (CIDI) which enabled major mental

Mental Health and Wellbeing Survey of Adults (ABS) *continued*

disorders to be scored according to both ICD-10 and Diagnostic Statistical Manual (DSM-IV) criteria. Other international modules were used to collect information about levels of general wellbeing and to assess disability.

Survey of Disability, Ageing and Carers (ABS)

The Disability, Ageing and Carers Survey provides information on three populations of interest to government policy: people aged 60 years and over, people with disabilities, and their carers. The survey was last conducted in 1998 and is expected to be conducted six yearly in future. People with disability are identified through filter questions on impairment and underlying health conditions. This population is then asked about their need for, and receipt of, assistance with a range of common activities. The survey provides details on prevalence of disability and levels of restriction; activity limitations leading to a need for assistance in the 'activities of daily living' (self-care, mobility and communication), plus health care; and participation restrictions leading to a need for assistance in the 'instrumental activities of daily living' (housework, property maintenance, meal preparation, transport, and personal business affairs). The sample was selected from households and cared accommodation settings.

Children's Immunisation and Health Screening Survey (ABS)

The Children's Immunisation and Health Screening Survey was conducted as a Monthly Population Survey (MPS) topic in April 1995. Previous information on children's immunisation has been collected in the 1983 MPS and the 1989–90 NHS. These surveys obtained information about the immunisation coverage of children aged 0–6 years, relative to the National Health and Medical Research Council's (NH&MRC) Standard Childhood Vaccination Schedule. The surveys aim to determine the immunisation status of children, overall and within population groups, and to enable changes in immunisation levels and patterns to be monitored over time.

The health screening component in the 1995 MPS collected information on the sight, hearing and dental screening of children aged 0–14 years. More general information on the use of health services by children was obtained in the 1983, 1989–90 and 1995 NHS.

Allied Health Industries Survey (ABS)

This survey conducted in 1997–98 was designed to collect information on a range of health related industries (e.g. dental services, optometry and optical dispensing, physiotherapy services and chiropractic services). The output from the survey will include employment details, income and expenses dissected by their major components, assets and liabilities and performance ratios.

Private Medical Practice Industry Collection (ABS)

This collection comprises two 1994–95 surveys: one from private medical practitioners and one from private medical businesses. The first collected information on medical practitioner demographics, qualifications, number of hours worked per week and number of patient contacts per week.

Private Medical Practice Industry Collection (ABS) *continued*

The survey of medical businesses collected employment and financial data for the specialist medical service industry and the pathology services industry for the 1994–95 financial year. The items measured included the income, expenses, profitability, employment, state, size of medical practice and capital expenditure for private general practice and private specialist practice industries in Australia.

Census of Population and Housing (ABS)

Conducted every five years, the Census collects detailed small area and national data. Among the person-level data provided by the Census are employment characteristics and a full occupation classification, which provide information on the distribution and characteristics of people employed in the health industry.

Cause of Death Collection (ABS)

This collection contains information on all deaths (excluding stillbirths) registered by State and Territory registrars, and has been compiled for each year from 1907. Information collected includes underlying cause of death, year of registration and occurrence, usual area of residence and some demographic characteristics. From 1997 onwards, multiple causes of death information has been coded using an automated coding system according to ICD-10.

Perinatal deaths collection (ABS)

Perinatal deaths comprise still births (foetal deaths) and deaths occurring within 28 days of birth (neonatal deaths). The collection comprises information supplied by State and Territory Registrars to the ABS from cause of Perinatal Death Medical Certificates prepared by the certifying medical practitioner.

Perinatal deaths information coded according to the ICD-10 is used as a basis for research by medical researchers and health professionals. Causes of death are assigned in terms of the main condition in the foetus/infant and the main condition in the mother. Perinatal deaths are commonly cross classified by birthweight, gestational age, age group of mother and State or Territory of birth or usual residence of the mother.

Private Hospitals Establishment Collection (ABS)

The annual Private Hospitals Establishment Collection (PHEC) provides information about the facilities, activities, staffing and finances of all private, acute, psychiatric and free standing day hospital facilities in Australia. The PHEC provides information about facilities (beds available, special units, etc.), activities (patient throughput, days of hospitalisation provided, bed occupancy rates), and patients (types of admitted patients, outpatients and operations performed). The PHEC data is used by policy makers, health industry analysts, and health-care researchers.

The Australian Longitudinal Study on Women's Health

This study of women's health is being conducted by the Research Institute for Gender and Health (University of Newcastle), and is designed to explore a wide range of health and health related issues, ranging from general wellbeing, to weight, exercise and health behaviours, time-use, social support and health care utilisation.

The Australian Longitudinal
Study on Women's Health *continued*

The baseline year was 1996, and the project intends to follow up respondents for up to 20 years. The cohorts consist of young, mid-age and older women and include samples from urban, rural and remote areas across Australia. The project will determine which health services could be improved, by learning about women's health problems, their lifestyles and their views on health services.

Further detail is available from the website:

<URL:/http://www.fec.newcastle.edu.au/wha/study.html>

National Drug Strategy Household Survey

The most recent National Drug Strategy Household Survey (NDSHS) was conducted by the Australian Institute of Health and Welfare (AIHW) in 2001 with funding from DHAC. The data collected is intended to provide information on the prevalence, attitudes and correlates of legal and illegal drug taking to inform policies and programs which are in turn designed to reduce the harmful effects of drug taking. The NDSHS contained questions on drug-related knowledge, awareness, attitudes, use and behaviours. It was the sixth survey conducted under the auspices of the National Drug Strategy. Previous surveys were conducted in 1985, 1988, 1991, 1993 and 1995. An Indigenous (urban) supplement to the survey was conducted in 1994.

National Physical Activity Survey

First run in 1997 as the Active Australia survey, the second National Physical Activity Survey was conducted in 1999 through joint funding by the AIHW and DHAC. The purpose of the survey was to monitor the prevalence of activity levels of Australians and assess the impact of the Active Australia initiative. The survey collected self-reported information from respondents on the duration, frequency, intensity and type of exercise, as well as height and weight and socio-demographic items.

AusDiab

Conducted in 2000, the Australian Diabetes, Obesity and Lifestyle Study (AusDiab) is the first national study to provide estimates of the number of people with diabetes based on blood tests, and on the public health and social impact of diabetes. The AusDiab study was undertaken by the International Diabetes Institute and has received funding from a wide range of public and private organisations including DHAC, State and Territory health agencies and a number of Pharmaceutical bodies. The objectives of the survey include to estimate the prevalence of diabetes and related conditions (including risk factors) and assess the distribution and relationships of cardiovascular risk factors and assess trends in risk factor levels as compared to those obtained in previous surveys in Australia. The data collected in AusDiab include: socio-demographic variables, diabetes status, medical and family history, general health and wellbeing, risk factors, and health service use.

Further detail is available from the AusDiab website

<URL:/http://www.diabetes.org>

Bettering the Evaluation and Care of Health

Known as the BEACH project, this is an ongoing survey of general practice conducted by AIHW and the General Practitioner Statistics Collection Unit (GPSCU) from the University of Sydney. The project is financially supported by DHAC and a consortium of pharmaceutical bodies. BEACH surveys around 1,000 general practitioners (GPs) from across Australia annually, selected from the Medicare Benefits Scheme provider database. The aims of the program are to establish an ongoing database of GP–patient encounter information and to assess patient based risk factors and the relationship these factors have with health service activity. The data is intended for use by government bodies, GP organisations, consumers, researchers, and the pharmaceutical industry.

Data items collected from the GP include demographic information, duration of practice, size of practice, number of patients seen. Patient data collected includes demographic information, whether used the practice before, reason for consultation and type of management (such as prescribed drug treatment) of health conditions.

Further detail is available from the website

<URL:/http://www.fmrui.org.au/beach.htm#1>

Australian Study of Health and Relationships

This national survey is being conducted in 2001 by LaTrobe University and the Central Sydney Area Health Service with funding from DHAC, a number of State and Territory health agencies and the NH&MRC. The aim of the study is to collect information on sexual health and related issues from people aged 16–59 years. The study design is similar to that used in a number of overseas surveys. The data collected covers sexual attitudes and experiences, general health status indicators and risk behaviours, as well as a range of demographic information. The results of the study are planned for release in 2002.

Further detail is available from the La Trobe University website

<URL:/http://www.latrobe.edu.au/www/ashr>

Dental Statistics and Research Unit collections

Established in 1988, the Dental Statistics and Research Unit (DSRU) is a collaborative unit of the AIHW based at Adelaide University. The DSRU aims to improve the oral health of Australians through the collection, analysis and reporting of dental statistics and through research on dental health status, dental practices and use of dental services and the dental labour force. In addition to a number of South Australian-specific surveys, the DSRU maintain national data collections, which include:

The Child Dental Health Survey — an annual monitoring survey of the oral health of children under care of State and Territory school dental services. Records provided by State and Territory health authorities are analysed to document the oral health status of children cared for by school dental services and the provision of care to those children. Redesign of this collection is being undertaken to improve representativeness of estimates, provide linkage with social and service provision data, and allow longitudinal linkage of unit record files.

Dental Statistics and Research Unit collections *continued*

The Adult Dental Programs Survey — a survey which monitors the oral health of adults receiving public-funded dental care. Collection of the survey will be extended to all States and Territories through the development of new management information systems which can capture oral health data.

Further detail is available from the Dental Statistics and Research Unit website
<URL: http://www.adelaide.edu.au/socprev-dent/dsru/data_frame.html>

National Cancer Registry

Cancer is a notifiable disease in all States and Territories, and is the only major disease category for which an almost complete coverage of incidence data is available. The National Cancer Statistics Clearing House (NCSCH) at the AIHW receives incidence data from individual State and Territory cancer registries on all cancers diagnosed among Australian residents. This commenced with cases first diagnosed in 1982. The AIHW produces national statistics on cancer incidence and mortality. The data items collected include clinical information on type of cancer and histology, as well as sex, date of birth, country of birth and place of residence. These data items provided to the NCSCH by the State and Territory cancer registries enable record linkage and facilitate the analysis of cancer by type, site and behaviour.

Further detail is available from the AIHW website
<URL : <http://www.aihw.gov.au/cancer/ncsch/ncsch.html>>

Diabetes Register

A National Diabetes Register, based at the AIHW, provides a database that can be used to keep an accurate account of the number of Australians who are diagnosed with diabetes, providing researchers with statistics on diabetics who use insulin. The information is collected from two principal sources: records of people using the National Diabetic Services Scheme and the State-based registers of the Australian Paediatric Endocrine Group. The Diabetes Register is limited to counting the number of diabetics who are using insulin, the majority being type 1 diabetics, and contains records for Australians that are diagnosed with diabetes after 1 January 1999.

National Notifiable Diseases Surveillance System

This collection was established in 1990 under the auspices of the Communicable Diseases Network Australia New Zealand (CDNANZ) to facilitate the detection, monitoring and control of disease outbreaks. The System coordinates the national surveillance of more than 40 communicable diseases or disease groups endorsed by the NH&MRC. Under this scheme, notifications are made to the States or Territory health authority under the provisions of the public health legislation in their jurisdiction. Computerised, de-identified unit records of notifications are supplied to the Network secretariat at DHAC for collation, analysis and publication in the Communicable Diseases Intelligence bulletin. Data provided for each notification include a unique record reference number, State or Territory code, disease code,

National Notifiable Diseases Surveillance System *continued*

date of onset, date of notification to the relevant health authority and demographic and geographic items.

Further detail is available from the DHAC website

<URL:/http://www.health.gov.au/pubhlth/cdi/nndss/nndss1.htm>

National Hospital Morbidity Database

The National Hospital Morbidity Database (NHMD) is compiled by the AIHW from data supplied by the State and Territory health authorities. It is a collection of electronic confidentialised summary records for admitted patients separated in public and private hospitals in Australia. All data are based on records of separation from hospitals. The data items collected include location and type of hospital, demographic data, clinical diagnosis, procedures, type of care, length of stay, and administrative data such as insurance status, compensation status and accommodation status. National data are held from 1993–94 onwards.

Further detail is available from the AIHW website

<URL:/http://www.aihw.gov.au/hospitaldata/morbidity.html#nhmd1>

Health Insurance Commission data sources

Medicare Benefits Schedule Data Collection — Introduced in 1984, Medicare, Australia's public health insurance scheme, was designed to make health care affordable, to give all access to services, and to provide high quality care. Medicare provides free or subsidised access to hospitals, medical practitioners, participating optometrists or dentists. Details are recorded for every health system transaction involving Medicare. The transaction details are recorded in the Medicare Benefits Schedule Data Collection. The data collected includes patient demographics, type of service and the Medicare contribution to the service.

Pharmaceutical Benefits Schedule Data Collection — The Pharmaceutical Benefits Schedule (PBS) provides access to necessary and lifesaving medicines at an affordable price for Australian residents. Most medicines available on prescription are subsidised under the Government's PBS. Data from the PBS collection are available from 1991 and contain the details of all prescribed medicines with prices above certain thresholds, the category of entitlement and the amount of the benefit.

Australian Childhood Immunisation Register — The register commenced in 1996 and enables parents and health care providers to check on a child's immunisation status. The Register is also used to monitor immunisation coverage levels, service delivery and disease outbreaks. The Immunisation Register records details such as type of vaccinations and the age sex and postcode of child.

Further detail is available from the HIC website

<URL:/http://www1.hic.gov.au/general/acircirghome>

National Midwives collection

The Australian Institute of Health and Welfare's National Perinatal Statistics Unit compiles perinatal data from each State and Territory from midwives and other staff. The information is obtained from mothers and from hospital or other records including complete notification forms for each birth. The collection has been

National Midwives collection *continued*

operating since 1979, and the information collected includes characteristics of the mother; previous pregnancies; the current pregnancy; labour, delivery and the puerperium; and the baby's birth status (live birth or stillbirth), sex, birthweight, Apgar scores and outcome. The Midwives data is combined with ABS births and perinatal deaths data into the annual report 'Australia's Mothers and Babies', which examines demographic and pregnancy factors of mothers and the characteristics and health outcomes of their babies.

Further detail is available from the AIHW website

<URL:/http://www.aihw.gov.au/npsu/databa_f.htm>

Commonwealth Disability Services Census

The Commonwealth Disability Services Census run annually by the Department of Family and Community Services covers all Commonwealth funded disability employment, print disability, advocacy and information services. The collection provides information to assist in the planning, development and management of Commonwealth disability programs and enables the Commonwealth to fulfil its reporting obligations under the Commonwealth State Disability Agreement. Consumer data collected includes: service type received; demographic information; method of communication; accommodation type; primary disability group; other significant disability groups; need for support/assistance; support commencement date; employment information (including standard hours worked per week).

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CHAPTER **5** **EDUCATION AND TRAINING.....**

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How do education and training relate to individual wellbeing?

Education and training are important means by which individuals can realise their full potential and make positive choices about their wellbeing. Education and training are often essential to gaining paid employment, and can provide the pathway to a rewarding career. Ultimately, education and training support full participation in social, cultural and economic life.

How do they relate to the wellbeing of society?

Education and training support the population's ability to produce goods and services and to be innovative and responsive to change, and are thus central to economic development. They are the basis for building positive social values that underlie social cohesion, and can assist in reducing problems such as unemployment, poor health or crime.

What are some key social issues?

- Monitoring and improving educational attainment levels for target groups.
- Promoting both equal access to education and equity in educational outcomes.
- Achieving sufficient levels of literacy to empower individuals in their daily lives.
- Ensuring educational resources are sufficient and appropriately distributed.
- Ensuring there is an adequate supply of teachers to meet the needs of students.
- Ensuring people leaving education are equipped to meet expectations of industry and the labour market, and have the necessary vocational and generalist skills.
- Facilitating lifelong learning.

What are the key definitional challenges?

Education and/or training can be broadly defined as activities facilitating the lifetime process of obtaining knowledge, attitudes, skills, and socially valued qualities of character and behaviour. In recent years there have been marked shifts throughout the education and training sectors that have changed the way in which some core educational concepts and institutions are defined. There is a blurring of the distinction between the concepts of education and training, between education sector boundaries, and between accredited and non-accredited education. In addition, the frequent need for re-skilling of the work force means education and training may be undertaken at any stage in the life cycle.

What are the main measurement issues?

- Formal education has traditionally taken place within three major sectors (e.g. schools, vocational education and training, and higher education). Available data is often confined to these sectors, despite the boundaries having become less distinct.
- Training that takes place in the workplace, or in relation to work, can be difficult to measure due to variation in the method and level of training provided by different organisations and employers. On-the-job training in particular is difficult to measure.
- Variability in the type and form of early childhood education offered in the community means this is also a difficult aspect of education to measure.
- What is considered an adequate level of literacy depends on an individual's social and work context, and respondents can also be sensitive about their literacy capability.

DEFINING EDUCATION AND TRAINING

People need to learn as they grow and encounter different life situations, and in order to gain and maintain employment and provide for themselves and their family. Beyond these basic needs, people also aspire to learn about aspects of life that interest them, and so they can contribute to society and the stock of human knowledge and understanding. This lifetime process of obtaining knowledge, attitudes, skills, and socially valued qualities of character and behaviour is facilitated and supported by education and training. Thus education and training are activities designed to meet the inherent and ongoing learning needs of the population. Most education and training involves communication, or a transfer of information (e.g. messages, ideas, knowledge, strategies, etc.) from one person to another. This communication can involve a wide variety of channels and media. It may be verbal or written. It may be delivered face-to-face or by other means (e.g. Internet, radio).

Education vs training

Traditionally the terms 'education' and 'training' have each had a specific focus. Education has been associated with gaining knowledge for broad vocational, cultural and civic ends (e.g. understanding the world and civilising society). It has typically taken place in the early stages of the life cycle in formal institutions such as schools and universities. Training has more often taken place in institutions oriented toward specific vocations, or in the work environment, and been focused on developing or enhancing skills used in the learner's work. However, in recent times the distinction between education and training has diminished. Education is now seen as extending beyond the formal institutions, and as continuing throughout adult life. It has become increasingly focused on economic and vocational outcomes, (e.g. on producing marketable skills). Similarly, training now extends beyond vocational institutions and the workplace, and is available in schools, with students able to study for vocational certificates as part of their school work. Ultimately, education and training are both vital supports to the lifelong learning process. They both equally enable individuals to take their place in a skilled and changing labour force, to lead fulfilling lives, and to become active members of the community.

Formal education and training

Education and training can occur within a variety of environments, some more formal than others. Education and training provided by schools, universities and other educational institutions is the most formal type of education and training. However, formal education and training can take place outside institutions and can continue after a person has completed schooling or gained trade or higher qualifications. Formal education activities have some common characteristics. They are planned and organised ahead of time, and the delivery of information is ordered and systematic. There is usually some evaluation or assessment of how well specific competencies or skills have been acquired by each individual participating. Formal education and training involves a direct student teacher relationship. Thus formal education and training can take place in the workplace, or in association with work,

Formal education and training *continued*

when people attend courses, seminars or workshops in order to acquire, develop or upgrade work related skills. People may also receive formal training when they learn to drive or qualify to serve in voluntary organisations.

Non-formal education and training

Non-formal learning occurs in situations where education or training is deliberate but may be unplanned, unstructured and/or unassessed. On-the-job workplace training is a good example of training that is intentional but delivered in an informal and unstructured way, and on an ad hoc basis. Hobby courses are usually non-formal education and training situations (for example, the training involved is deliberate, and may be structured, but is usually unassessed). Other non-formal education and training occurs in the home, when parents instruct children on commonly held social values or teach them living skills. Non-formal education and training does not always involve a direct student teacher relationship. For example, non-formal learning occurs when people teach themselves skills through reading, listening to tapes, or following self-guided tutorials on computers. When people search websites or visit libraries to gain information about a topic of interest to them, they are educating themselves informally without a teacher or trainer.

Incidental learning

The deliberate formal and non-formal education and training we receive is only one aspect of our wider learning experience. In other words, most people experience some level of incidental learning on a daily basis in the process of living (e.g. in getting from one place to another, people learn which routes are the most direct). People absorb behavioural rules and norms through their life experiences. Children, in particular, constantly absorb incidental information. And people pick up knowledge about the world while relaxing, conversing with friends, watching television, or listening to the radio. However, such forms of incidental learning are generally outside the scope of the ABS system of social statistics, which focuses mainly on learning that is intentional, and thus involves some form of education and training. Formal education and training, in particular, is amenable to statistical measurement and classification, and is often the focus of social issues, policy and planning in the area of education and training. However, there is increasing social and policy interest in non-formal education and training, such as that taking place in the workplace or community, and these are also a focus for measurement.

Changes in education and training

There has been considerable change in the area of formal education and training over the last century, particularly in the last few decades. These changes are in response to shifts in economic policy or advancements in technology, and illustrate the dynamic relationship between education and the changing social, economic, and cultural landscape of Australia. These changes have affected the way in which some core educational concepts and institutions can be defined.

Pathways to and from education — Pathways from school into the labour force or tertiary education are changing. In the past, people tended to move from school into full-time work or tertiary education and training. From tertiary education and training they moved into full-time work. However, rapid economic and technological change

Changes in education and training *continued*

has led to a continuous need for re-skilling in many parts of the workforce. Economic growth now depends more heavily on the ability of the workforce to constantly both improve its skills and retrain in new skills. As a consequence, people now increasingly move backward and forward between different forms of education and training (e.g. secondary, tertiary, vocational), and different forms of work (e.g. part-time work, full-time work). It is also more common for people to undertake education and work simultaneously.

Timing of education and training — Changes in educational pathways have occurred in parallel with a shift in the period in which the majority of formal education and training occurs in the life cycle, and education and training statistics now need to take into account a broader age range. Formal education is no longer just for the young but can be a life-long process.

Sectoral boundaries — All the above shifts have been associated with changes in how governments provide vocational education and training (VET) and higher education, and an increase in private provision of education at all levels. There has been a breakdown in the distinction between the three major education sectors: schools, VET, and higher education. It is now increasingly possible to transfer studies between these sectors in order to complete a qualification. In some instances, universities and colleges of technical and further education (TAFEs) have combined, while in others, universities offer courses previously only available from TAFEs and vice versa. VET is now a significant and growing element of the curricula in schools, which means students can obtain a vocational certificate at the same time as they complete their schooling.

In the past, the type or level of education undertaken by someone could be safely defined based on the institution they attended, but this is no longer the case. Measurement of, say, secondary education now needs to take into account education that takes place within technical colleges as well as that which takes place within secondary schools. Focus is now more on the level of skill achieved, or on the type of learning undertaken, than on the type of institution attended.

Expanding areas of education and training — Some areas of education and training have expanded in response to broad social changes, such as the increased participation of women in the workforce, the ageing of the population, and growth in service industries. There has been a growth in early childhood education facilities and in adult education courses, and more sporting, recreational and cultural educational courses have become available. Technological change has also been a factor in stimulating growth across many education and training areas.

Delivery of education and training — Further complicating the measurement of education and training are changes to the way in which education and training are delivered. Face-to-face delivery is now only one of a number of more flexible education delivery methods used including audio, video or on-line delivery. The delivery of education now frequently extends beyond the physical confines of formal institutions. Similarly, training can now often be undertaken outside the workplace and may be conducted by public institutions or commercial providers.

Changes in education and training *continued*

While social statistics need to be responsive to these kinds of changes, statistical frameworks and collections also need to maintain their integrity over time, to ensure that the usefulness of time series data and the compatibility of existing collections is not diminished by modifications to methods. This chapter therefore discusses both existing education and training measures, as well as some developing statistical frameworks.

EDUCATION, TRAINING AND WELLBEING

The famous English writer and social commentator, G. K. Chesterton, once described education as '... the soul of a society as it passes from one generation to another.'¹ While some may find this metaphor broad, few would argue the importance of education to our personal identity and to social wellbeing.

Individual wellbeing

Education and training are directly related to the concept of social capability outlined in Chapter One. Learning even the most basic language, social and practical skills can give an individual the capacity to live an independent life. Higher learning allows people to interact even more fully with society and to pursue more ambitious goals. At its most powerful, education may provide an individual with a fulfilling and financially rewarding career and/or the capacity to contribute to society in areas such as politics, science, journalism, design, literature, engineering or other professions. In other words, education and training provide an individual with the potential for full participation in social, cultural and economic life.

Education and training can allow individuals to enhance their wellbeing over time by helping them understand the options available to them, and guiding them in choosing pathways that will benefit them the most. Appropriate education or training can be vital in breaking a cycle of poverty, where employment opportunities may be limited by low educational attainment, and educational attainment is limited by the lack of funds, experience and other benefits that come from secure employment.

Wellbeing of society

While the acquisition of knowledge and skills can be fulfilling, and beneficial to individuals, it is also integral to the production of the goods and services that are used by society as a whole, and contribute to the nation's wealth. The economic wellbeing of the nation is, therefore, also dependent on effective outcomes from education and training. The greater the proportion of well educated and skilled individuals within a nation, the greater its capacity for economic output and gain, and the more competitive it can be internationally. It has become an important aim of governments to educate Australians to become more economically competitive in a dynamic global economy.

While education and training have a key role in improving Australia's economic competitiveness, they have an equally compelling role in contributing to the creation and maintenance of a positive social environment. Because education and training can ensure individual citizens are informed, skilled and able to make positive choices, they are important tools in reducing social problems such as unemployment, crime

Wellbeing of society *continued*

or ill health. Education is also a key factor in promoting and nurturing attitudes and values that support a cohesive and cooperative society, and in socialising children to live in a civil society.

SOCIAL ISSUES

Level of educational attainment

The level of education attained by a particular population group is a crucial indicator of the ability of that group to meet the expectations of industry and the labour market. It can also indicate the success or otherwise of government initiatives to improve educational outcomes. It can be an indicator of the social capability of a population group, and their socioeconomic status, and may explain low or high levels of wellbeing in the other areas of social concern. Educational attainment data provides an understanding of the level of human capital in the population at a point in time, an understanding of the skill level of the working-age population, and an indicator of socioeconomic difference.

There have been changes in the overall level of education attained by Australians over the last few decades. People are staying at school longer and more people are continuing their education to tertiary levels. More significantly, there has been an increase in the proportion of people going on to higher education. There has also been a shift in the educational experience of women, with a larger proportion of women completing higher levels of education.

Educational attainment is strongly correlated with literacy levels and appears also to be associated with a range of aspects of social capital.¹ Thus higher levels of education bring more generalised benefits to the community than simply those associated with individuals gaining specific vocational skills or knowledge.

Field of educational attainment

It is important to monitor the under or over supply of people with particular qualifications in order to match educational objectives with labour market demands. It is also important to monitor how well skills and knowledge are keeping pace with contemporary means of production and changes in technology. Information on field of education, particularly changes in patterns of participation and attainment in particular fields, is useful for these reasons.

People working in jobs which do not utilise their qualifications may be underemployed. This type of underemployment has implications for both workforce productivity and individual fulfilment. When analysed in conjunction with occupation data, field of educational qualification can shed light on this issue.

Responsibility for work based training

There are issues surrounding the allocation of responsibility for delivering and financing work based training. Statistics can be used to inform debate about the most effective or appropriate way of distributing this responsibility between government, employers, employees and training providers.

Barriers to education and training

Because education and training can have a profound effect on the ability of individuals to achieve their potential and participate fully in society, identifying barriers to education and training is a key concern of governments and communities.

An obvious barrier can be the affordability of education and training. There has been an increase in the number of private providers of education and training over the last few decades. The shift in balance from public to private first mainly occurred in respect of vocational education and training services. However, in the last decade private universities have also come into being. In addition, a number of public providers of education are now offering full-fee paying courses, and higher education now also attracts fees, although the Higher Education Contribution Scheme (HECS) allows students to defer payment of fees until they are working and earning sufficient income. Education affordability also relates to how students manage to finance their living expenses while they are studying. This can be through part-time work, government support (youth allowance) or support from family.

Other potential barriers relate to the accessibility of education, for example, in terms of distance and cultural appropriateness. These issues are discussed further under 'Population groups'.

Equity in educational outcomes

Equal access to educational opportunities does not guarantee equal educational outcomes. Students may encounter difficulties throughout their education or training that are not related to access, but which can affect both their desire and their ability to succeed. These can include cultural differences, poor literacy or numeracy skills, health conditions, and even the expectations (and level of education) of an individual's family or community.

Literacy and numeracy

In addition to the broader labour market implications, poor literacy or numeracy can be a serious impediment for people in their day to day life. If people are to improve their wellbeing via transactions undertaken within their social environment, it is crucial that they have the communication skills necessary to support those transactions. Successful educational outcomes are also highly dependent on adequate literacy and numeracy skills. How successful programs can be developed and targeted is of key interest to governments, as is the effectiveness of existing initiatives and programs.

Staffing and resources

Matching changing educational demands with an adequate supply of teachers and trainers is an ongoing issue. There is concern that there may be a general under-supply of teachers, academics and other education professionals within a few years due to the ageing of people in these occupations.

While primary and early childhood teaching has been mainly a female profession for a long time, secondary teaching is now also primarily attracting women. There have been some concerns raised about the effect of this on boys, as well as the implications of this for the perceived status of the profession of teaching within society.

Staffing and resources *continued*

There is some debate as to whether the esteem in which teaching professionals are held by our society has been falling. Society's valuation of teaching is difficult to measure but could be explored by, for example, examining whether teachers' levels of pay have kept pace with the earnings of other professionals.

The large increase in higher education enrolments in recent years has not been matched by similar increases in academic staffing. This can lead to higher student-to-staff ratios, which can in turn impact on the quality of student experiences. An associated issue is the number of education professionals (both teachers and researchers) leaving the profession, or seeking work overseas.

Education, training and work

The relationship between educational outcomes and the labour market can also be a focus of concern. The education and training sector needs to ensure that both teaching and curriculum content are relevant and reflect the current needs of the work force. In some cases, education and training programs may be targeted within particular regions to match the particular industry characteristics of those regions. Some other issues of interest are whether:

- young people are successfully making the transition from education to work;
- graduates are appropriately equipped to match local job opportunities;
- there is an under or over supply of graduates / trainees in particular fields; and
- the workforce has the necessary skills to meet changing needs of the workplace.

Vocational vs generalist education

With the gradual shift in society's view of the purpose of education, there has been a shift in emphasis towards gaining education for economic reasons (e.g. to get a job, to increase productivity) rather than for civic or cultural reasons (e.g. to understand the world, to benefit society). While this new direction in education may equip graduates to meet the demands of specialised technical industries, it has raised some concerns about the devaluing of humanities or arts based education. These forms of education foster cultural awareness, understanding and tolerance, and artistic endeavour and appreciation. A decline in these forms of education may also result in some loss of the communication and creative skills that are an essential complement to technical skills.

Early childhood education

Early childhood education is recognised as important in preparing children for school, and, more generally, for life. However, there is debate about when children should begin to be educated formally, and whether, and to what extent, early childhood education can affect later educational and employment outcomes. These issues are complicated by the difficulties associated with collecting information on early childhood education (see page 145 — *Early childhood education*).

POPULATION GROUPS

Many of the population groups described below suffer disadvantage in a number of ways, but especially in their ability to access, or succeed in, education compared with the rest of the population. Consideration of these groups helps provide direction for the collection and analysis of education and training statistics.

Men and women

Males and females have very different patterns of advantage and disadvantage in education and training. There are still concerns about how males and females can be encouraged to participate in fields of education traditionally dominated by a particular sex (e.g. encouraging females into engineering and trade courses, and males into teaching and nursing courses). There are also concerns about boys in schools, particularly in relation to learning and behavioural problems and to their achievements in specific subject areas compared with girls. For women there are concerns that increased participation in education may not be carried through into comparable work outcomes and salaries.

Low socioeconomic status

There is interest in a number of issues relating to the effect of low socioeconomic status on educational outcomes, for example, the extent to which individuals or families with a low socioeconomic status are unable to afford education beyond compulsory schooling. Also of interest is whether these individuals and families have difficulties meeting the costs of books, school outings and any voluntary fees charged by government schools. Special tuition for children in need of extra help, or extra-curricular activities such as music lessons, may also be beyond their family's means. Cultural or family attitudes to the valuing of education, and personal factors such as confidence, may inhibit students from a low socioeconomic background from continuing in education past compulsory schooling. Also, schools in more disadvantaged communities may face greater challenges in obtaining resources and support from parents and the local community.

Ethnicity

Students who do not speak English well, or are of a different cultural background, may experience disadvantage in education, and government interest often focuses on what measures can be taken to improve educational access and outcomes for these groups. Students who are usually resident overseas but are studying in Australia may be here for many years as they complete one or more courses, and may face cultural and other problems with the education system. They often have no family support in Australia. Because their families or communities overseas have often paid for their tuition fees, they may also be under greater pressure to succeed.

Indigenous people

The educational outcomes of Aboriginal and Torres Strait Islander peoples are often less favourable compared with the rest of the population. Factors affecting the access, participation rates, and attainment levels of Aboriginal and Torres Strait Islanders are complex, and may include economic disadvantage, social marginalisation, health problems, differences in community expectations and geographical isolation. These problems can be exacerbated by limited access to forms of education, or avenues of support, that take account of language and cultural differences.

Rural students

Students living outside the major cities, especially those in rural and remote areas, may be disadvantaged in their education. The range of subjects and levels of study available to these students is often more limited, as can be their access to technology. They may also have limited or no access to non-compulsory education such as early childhood education and tertiary education. Many rural students have to move to urban areas to attend post-compulsory education. Problems caused by distance and isolation are often compounded by the costs associated with setting up home education facilities, or with living and studying away from home. In rural and remote areas there may also be limited employment opportunities, which can be a further disincentive to study beyond compulsory schooling.

Early school leavers

A number of recent studies suggest that early school leavers are one of the most disadvantaged groups in the labour force.² With the increased importance of education and training to the labour market, this disadvantage is growing. This group are more likely to become unemployed and long-term unemployed. When they obtain work, it is more likely to be in the lower paid occupations. They are more likely to be from a low socioeconomic background in the first place and leaving school early may continue a cycle of disadvantage for themselves and their children.

People returning to education

With the rising importance of lifelong learning, issues relating to people returning to education after being in the labour force or raising children can be expected to grow in number. Their needs in education may be very different from those of people making a direct transit from compulsory to post-compulsory education.

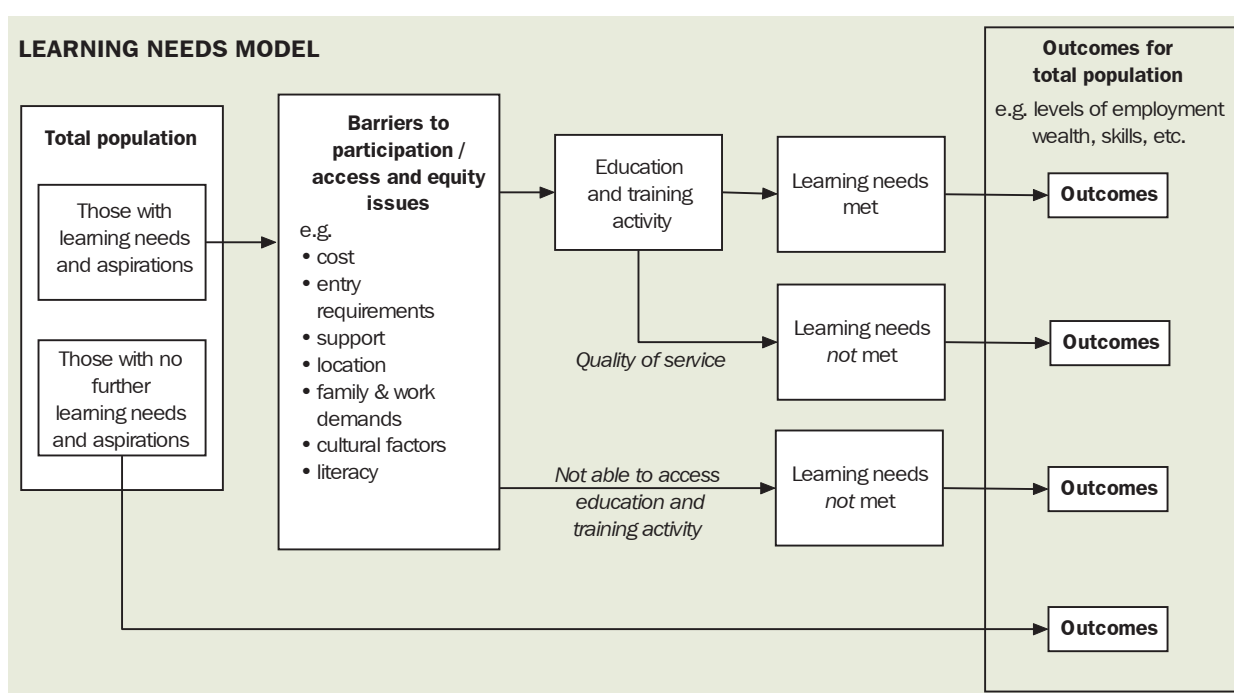
FRAMEWORKS

Framework for Australian Education and Training Statistics

The ABS is currently developing a framework for the measurement of education and training: the Framework for Australian Education and Training Statistics. The framework will be designed to allow analysis of a broad range of learning activities. It aims to organise concepts and information relating to education and training into a logical structure, providing a coherent and comprehensive map of education and training statistics, and representing an agreed way of thinking about the area. Two models which complement this framework are described below. The first is an evaluative model that considers the learning needs and aspirations of the Australian population, and outcomes relating to whether or not these needs have been adequately met. This model complements the second model outlined — the education and training activity model. The activity model can be used to organise statistics that relate to education and training activities and the social and individual outputs and outcomes arising from these activities. Both models can be extended by considering the broader social and economic environment surrounding learning and education and training and the interaction of learning with this context. Education and training transactions are also discussed below in relation to the transaction model introduced in Chapter 1.

Learning needs model

The learning needs model represented below describes some major areas of policy interest, such as the learning needs and aspirations of the population (or of sub-populations) and their ability to meet these needs through accessing appropriate and adequate education and training activity. Within this model, different socioeconomic outcomes are represented, depending on whether learning needs and aspirations are met or not. The model identifies two major reasons why learning needs are not met. One relates to access and the range of barriers to education and training that individuals or particular population groups may encounter. The other relates to the adequacy, quality or appropriateness of particular education and training activities. The model is set within the context of the total population to assist evaluation via comparisons and analysis of differentials.



Learning needs of the population — Understanding the kind and extent of learning needs and aspirations existing within the population can be essential to informing education and training policy. Measures of learning needs can form the basis for evaluating policy and programs aimed at improving access to education and training, and/or education and training activities, outputs and outcomes. Learning needs can be quantified or measured in a number of ways. For example, the perceived demand for skills in industry or the community can indicate learning needs, as can information about social and technological change. Different regions and population groups may have different learning needs, and the more accurately these can be identified, the more readily policy and programs can be tailored to meet specific demand. Employment, unemployment and underemployment measures, particularly where these are related to occupation, industry, age and regional information, may

Learning needs model continued

therefore also be useful indicators of learning needs. Self-reported learning needs or aspirations could usefully inform education and training policy for particular population groups such as school leavers or older people.

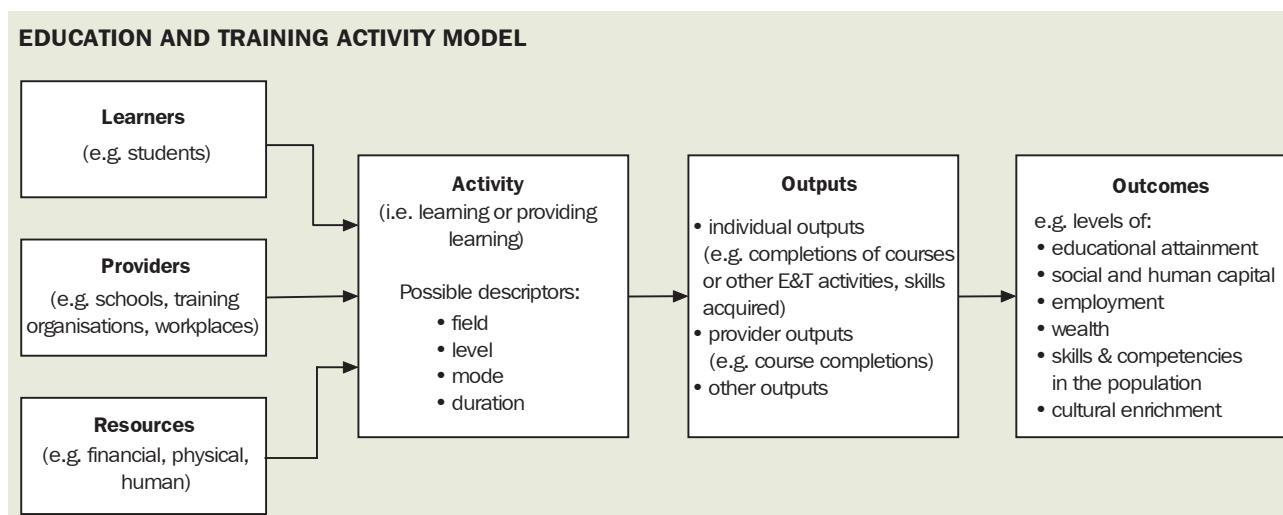
Access issues — Many access issues are discussed in the 'Social Issues and Population Groups' sections of this chapter, and mainly relate to factors which may prevent an individual from undertaking education and training activity. Measures that identify barriers to education and training, and the relative impact of these, are central to informing social policy.

Learning needs met / not met — Learning needs may not be met where barriers to education and training participation are encountered. In addition, learning needs may not be met due to the quality, adequacy or appropriateness of particular education and training activities. Measures relating to this part of the model therefore provide a means of evaluating education and training activity in terms of learning needs. Time series measures of the learning needs in particular regions or of particular groups may indicate whether needs have changed over time, or in response to education and training programs or policy initiatives.

Outcomes — Within the learning needs model, outcomes refer to broad level individual, social and economic outcomes (narrower, course specific outcomes, e.g. specific skill attainments, are addressed as 'outputs' within the learning activity model outlined below). For individuals this might include improved labour market and financial outcomes or less material outcomes, such as improved self-esteem. Societal outcomes might be increased productivity, improvements in employment and wealth levels, or improved health in specific areas resulting from a more informed population. Greater cultural diversity and enhanced social capital can result from effective education and training activity. Negative outcomes are also included. Individuals who have not been able to access education and training may have decreased social capability. Inappropriate or inadequate education and training may result in underutilisation of skills in the labour market or disparity in the distribution of skills. Tolerance or social cohesion can be diminished where education and training fail to meet learning needs. The effectiveness of the transition of graduates into work is a key outcome measure as it reflects the success of the education process in terms of supplying the labour market.

Activity model

A strong focus of measurement within the area of education and training relates to the contributing factors, processes and results associated with formal and non-formal education and training activity. The activity model represented over the page is therefore a central element of the Framework for Australian Education and Training Statistics. This model identifies participants and providers as contributing parties to education and training activities, as well as the resources needed for such activities to take place. Resources flow into the activity, and outputs and associated broader outcomes arise from the activity.

*Activity model continued*

Learners — Individuals as learners are essential for education and training activity to occur. Characteristics of individuals, including demographic and socioeconomic characteristics, and other information such as whether or not individuals have a disability, provide contextual information against which outputs and outcomes can be better understood. Information about such things as motivation to participate in education, educational experiences, and levels of social capability can also be useful. Measures associated with this element of the framework can feed into program, curriculum and policy development. In the context of the total population, there may be people who are potential learners but have not been able to access education and training. The paths of these people are illustrated in the learning needs model.

Providers — Providers of education and training may be institutions, organisations, community education providers, small groups delivering informal education and training, or individuals. Information about the number, distribution, size, etc. of providers is integral to analysis of education and training infrastructure.

Resources — Human resources, physical resources and financial resources are also generally required for education and training activity to occur (in most cases all are necessary but in some cases learning can occur with only a learner and a physical resource). Measures of resources can support analysis of the funding and costs of education and training.

Activity — This element of the model refers to the actual education and training that takes place. It can include measures of characteristics of the education and training activity, such as the type of learning or learning program, (e.g. whether formal, such as schooling, or less formal such as workplace based training; or community based hobby courses). Other characteristics of interest could include mode of learning, (e.g. whether face to face, distance, on-line), the level of course being undertaken (e.g. whether higher educational degree or non-accredited certificate), or the duration and field of study. Education participation rates provide a measure of the

Activity model continued

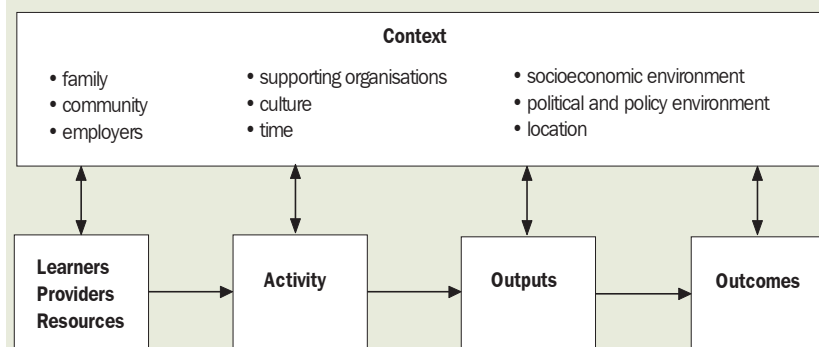
number of people involved in a particular education and training activity, e.g. studying within a particular field, or studying through apprenticeships or work related training courses.

Outputs — This part of the model includes measures that relate to the initial results of the education and training activity. On an individual level this might include qualifications or courses completed, pieces of work completed, or specified competencies or increases in knowledge. Outputs might also include aggregate measures such as course completion rates for particular institutions.

Outcomes — Changes which occur as a result of outputs are considered outcomes of education and training activity. Outcomes in the education and training activity model include (and are consistent with) the broad social and individual outcomes described above in the learning needs model. A key outcome is the stock of human capital within the population. Field of completed qualification is also relevant, as it can be used to assess where there is an under or over supply of labour within particular occupation groups. The differentiation between outputs (e.g. completions), and outcomes (e.g. increased labour supply in particular occupations; improved health for particular population groups; greater productivity of the work force) allows broader outcomes of education and training to be mapped and used in evaluating education and training.

Context

The models described above can be built on in order to acknowledge the broader social and economic context in which education and training activity occurs or does not occur. The diagram below extends the activity model by representing the individual's interaction with the wider environment as they make choices to enter or re-enter an education and training activity. It acknowledges that there is a dynamic relationship between education and training resources, the activities of learners and providers, outputs and outcomes, and the wider environment. For example, flows from the workforce back into training can be recognised. Measures of the phenomena of lifelong learning and ongoing re-skilling of the workforce are thus accommodated within the framework. Family, community and other social contexts are also acknowledged as interacting with participants at all stages. A similar

EDUCATION AND TRAINING ACTIVITY MODEL WITH CONTEXT

Context *continued*

representation of context could be applied to the learning needs model to allow analysis of the influence of the wider environment and social contexts on whether learning needs are met or not.

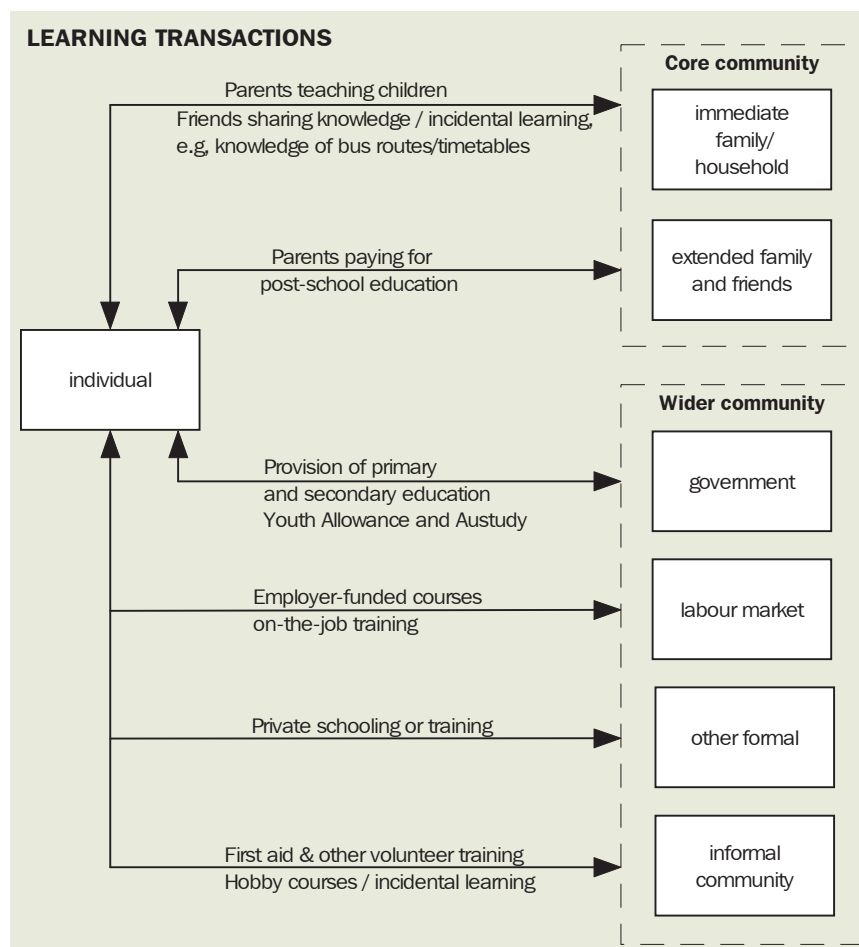
Measures that relate to physical, social and economic environments are context measures. These include measures relating to an individual's core community, to employers, government policy, community services, facilities and physical environment, or to the socioeconomic and cultural setting in which individuals live.

Two other context dimensions are particularly important in explaining education and training activity. First, time brings changes to the area of education and training that can affect all the above framework elements. Thus, both time series measures and longitudinal studies provide important contextual information. Series of comparable cross-sectional measures are needed to allow analysis of change in distributions over time. Longitudinal measures that track individuals through their education and training process throughout their life facilitate analysis of interaction between individuals, education and training activity, and the wider environment.

Second, geographic location is also important in understanding education and training. For example, policy relating to education and training may be usefully guided by geographic context information (e.g. training programs may be tailored to individuals living within particular socioeconomic environments, or in particular regions). Geographical location measures can be in terms of States and Territories and other defined geographic regions; the broader notion of location (e.g. urban vs rural, or domestic vs international comparisons).

Transaction model

The transaction model discussed in Chapter 1 can be a useful tool in analysing the complexity of all social exchanges relating to learning. It defines some key stakeholders (individuals, education providers, and the wider community) and traces the exchanges between them, highlighting the direct interactions between parties when learning takes place. The transaction model allows education and training processes and events to be viewed within the context of all learning. It therefore maps learning that is incidental, such as absorbing knowledge, social values, survival skills, or social behaviours from family, peers and life experience. Broad outcomes are highlighted. For instance, social capital outcomes, such as improved community cohesion, or trust; and psychological capital outcomes, such as improved self-management. Thus, an individual trained in first aid may be able to assist a neighbour in need, a person who has attended ethnic cooking classes may have a greater appreciation of different cultures, or a community may have a reduced need for residential care because people with disabilities have acquired independent living skills. Examples of education, training and learning transactions are shown opposite.



Education and training measures

Learners

Number and characteristics of participants — Learners, as represented in the models shown above, are often described as participants, and a range of data is available about educational participation relating to numbers of learners (discussed below as activity measures). Measures relating specifically to learners (or participants) includes an extensive range of descriptive, demographic and sociodemographic variables about the individuals participating in education and training activities.

Providers

Number and characteristics of providers — Information about providers, such as schools and universities, available from ABS and other collections, variously include details of their number, by size, location (State/Territory), sector of industry (public or private) and various other descriptive characteristics.

Resource measures

Number of educators — School teachers, academics, training providers or any other people providing education or training are all regarded as educators. Their numbers can be measured either as the actual number of educators (number of persons employed), or as the full-time equivalent number of educators (actual amount of time worked divided by standard full-time hours). Full-time equivalent numbers

Resource measures continued

allow for a better comparison between industries, or between students and educators. Some key measures include the number of school teachers employed in Australian schools and the number of non-teaching staff employed in schools (available through the National Schools Statistics Collection). Figures on academics are available from higher education collections. The number of people employed as educators, and the number of people employed in the education industry, are also key measures (available from a variety of collections which measure employment by occupation and industry, e.g. the Census of Population and Housing and the Labour Force Survey).

Earnings of educators — The cost of educators' earnings is a major factor in assessing the financial cost of education and training. In addition, it can also be seen as a measure of the changing worth of educators in our society, and as a means of comparing the financial returns from this occupation with occupations which require comparable qualifications.

Student to teacher ratios — Student/teacher ratios can indicate change in the level of resources going into education (relative to student numbers) over time or between different sectors. However, they are not a reliable indicator of class size as some teachers may have a component of their time which is non-contact, or may be resource teachers (e.g. librarians).

Government expenditure — Information on broad government expenditure in the education industry can show changing levels of government spending on education over time by presenting the level of education expenditure as a proportion of Gross Domestic Product (GDP) over a number of years. (Data on expenditure is primarily available through the public finance collection published by the ABS which collates information on State and Federal Governments' finances and releases information for certain categories, including education). The level of financial support given to individual students by the government to provide for living and/or education expenses is also a useful measure.

Private expenditure — Information on private expenditure can be in the form of measures relating to employer support for education and training, support provided by an individual's family, or by professional or union organisations. Information about the expenditure of individual households on the education and training of household members may also be a useful measure of private expenditure. Different kinds of support can be provided by employers, for example payment of HECS fees, paid study or training leave, in-house training, etc.

Activity measures

Participation — Measures of participation in education and training provide a picture at a point in time of the number of people actively involved in recognised education and training. Current educational attendance can be collected in conjunction with a number of other factors, such as level of qualification, field of study, whether the course taken is part-time or full-time, etc. When measured over time educational participation can provide insight into expected oversupplies or short-falls in the skills required by the labour force. Participation data can also assist

Activity measures continued

in understanding unemployment rates, particularly for the youth population. Information about current training attendance is also valuable. This can include information on the subject matter of the training, whether the training is formal or informal, conducted within the workplace or externally, etc.

Apparent retention rates — The apparent retention rate is an estimate of the percentage of students of a given cohort who continued to a particular level or year of school education. The term 'apparent' is used as the exact paths of all school students are not tracked, rather, the number of students in year 10 or 12 is taken as a proportion of those who entered secondary school a number of years earlier. The rate does not account for those who migrated into or out of Australia in the measurement period, or allow for the impact of students repeating years. Nor can it account for the movement of students between State or Territory borders or between the government and non-government systems. Provided these limitations are acknowledged, apparent retention rates are a useful indication of the likelihood of students staying in school to certain years.

Work based training — Work based training refers to training (either structured or unstructured) provided by employers for their employees. Structured training relates to training activities that have a predetermined plan and format designed to develop employment related skills and competencies. Unstructured training relates to informal training that does not have a specified content or predetermined plan (it is usually conducted on-the-job and is more difficult to measure). Key measures of work based training include number of training hours provided, whether the training was conducted in-house or externally, and the size, industry and sector of organisations providing training for their employees.

Apprentices and trainees — The meaning of the term 'apprentice' has changed substantially over the years, so time series measures of apprentices and trainees refer to a changing phenomenon rather than a static one. Since 1983 (when ABS measures of apprentices began), traineeships have come into existence making it increasingly difficult to differentiate between apprentices and trainees. However, in 1998 'New Apprenticeships' was created, dissolving many of the differences between the two types of contracted training.

Early childhood education — There is considerable difficulty in measuring early childhood education due to the overlapping responsibilities of preschools, child-care and other early childhood programs. Some children attend preschool and child-care facilities separately, others attend a preschool program as part of their child-care program. Also, child-care programs can differ from facility to facility, with some having a strong emphasis on education and others being primarily concerned with child minding. Adding to this complexity is the fact that preschools have different names and operating requirements in the different States and Territories.

Output and outcome measures

Completions of courses and other learning activities — A key measure of outputs is the number of courses of education and training (by type, field, and so on) that have been completed by individuals. Time series measures of completions can show whether there are trends in completions over time in response to particular programs or policies (e.g. funding and fee policy). Comparing completion data to data about the number of people entering education and training courses can provide evaluative information.

Level of educational attainment — Educational attainment is a measure of completed education in terms of the level of qualification achieved. For example, it describes whether a person completed Year 12, a bachelor degree, a doctoral degree, or some other level of education as defined by the Australian Standard Classification of Education (ASCED). It is a core explanatory variable used widely across all areas of social statistics, alongside other sociodemographic variables. Social indicators such as the proportion of the population with non-school qualifications, or the proportion with a degree or higher, are useful measures by which increases in the overall level of education can be monitored.

The two main aspects of education identified by educational attainment are: the highest level of schooling a person has completed and whether they have completed a non-school qualification. These measures may be combined to take stock of the highest educational attainment of the population (although 'highest level of schooling completed' is also an independent measure of the extent of schooling in the population). To allow this to be done consistently across its statistical collections, the ABS has developed a decision table which allows the selection of the most appropriate qualification in a range of different circumstances. For example, if a person has obtained both a Senior Secondary Certificate of Education (Year 12) and a Certificate III in Vehicle Mechanics, it is more useful for most statistical purposes to report the Certificate III as the highest qualification.

Field of education — Field of education is a useful measure of the types of skills available in the community, in particular those available in the working age population. In the past the ABS has developed and implemented its own standard for field of education classification which differed from that used by other agencies. However field of education is now encompassed by the ASCED which includes all fields of education available in schools, VET and higher education. Field of highest qualification is available from all major sources of education data, including the Census of Population and Housing.

Literacy measures — Measures of literacy produced by the ABS are based on the literacy framework used in the (SAL). Literacy and numeracy skills in scope of this framework are defined as 'the information processing skills necessary to use printed material found at work, at home, and in the community'. The framework focuses on 'functional literacy and numeracy' — those skills necessary to understand and use information from material printed in English and found in everyday adult life — and assesses three aspects of literacy.

Australian Standard Classification of Education (ASCED)

The Australian Standard Classification of Education (ASCED) replaced the ABS Classification of Qualifications (ABSCQ) in 2001. The ASCED has been designed to classify education according to the two main aspects which are of primary interest to users of statistics on educational provision and attainment: Level of Education; and Field of Education. In the Level of Education classification, a pragmatic approach is taken towards the distinction and overlap between secondary education and vocational education, by grouping all secondary education in one broad category and Certificates I–IV in another. This approach offers the advantage of allowing poorly described observations in particular statistical collections to be allocated relatively easily to broad groups. An ordinal relationship between the categories in Broad Level 5 Certificate Level and the categories in Broad Level 6 Secondary Education is not therefore implied.

Level of Education — has nine broad level groupings and fifteen narrow level groupings (shown below) and a more detailed level.

- 1 Postgraduate Degree Level**
 - 11 Doctoral Degree Level
 - 12 Master Degree Level
- 2 Graduate Diploma / Graduate Certificate Level**
 - 21 Graduate Diploma Level
 - 22 Graduate Certificate Level
- 3 Bachelor Degree Level**
 - 31 Bachelor Degree Level
- 4 Advanced Diploma and Diploma Level**
 - 41 Advanced Diploma and Associate Degree Level
 - 42 Diploma Level
- 5 Certificate Level**
 - 51 Certificate III & IV Level
 - 52 Certificate I & II Level
- 6 Secondary Education**
 - 61 Senior Secondary Education
 - 62 Junior Secondary Education
- 7 Primary Education**
 - 71 Primary Education
- 8 Pre-Primary Education**
 - 81 Pre-Primary Education
- 9 Other Education**
 - 91 Non-award Courses
 - 99 Miscellaneous Education

Field of Education — is grouped into 12 broad categories (narrow and detailed levels also available):

- 1 Natural and Physical Sciences**
- 2 Information Technology**
- 3 Engineering and Related Technologies**
- 4 Architecture and Building**
- 5 Agriculture, Environmental and Related Studies**
- 6 Health**
- 7 Education**
- 8 Management and Commerce**
- 9 Society and Culture**
- 10 Creative Arts**
- 11 Food, Hospitality and Personal Services**
- 12 Mixed Field Programs**

Output and outcome measures continued

- *Prose literacy* — the ability to understand and use information from various kinds of prose texts, including newspaper and magazine articles, and brochures.
- *Document literacy* — the ability to locate and use information contained in materials such as timetables, charts, graphs, and maps.
- *Quantitative literacy* — the ability to perform arithmetic operations using numbers contained in printed texts or documents. This type of literacy clearly has a strong element of numeracy. However, because it relates to the ability to extract and use numbers from printed texts and documents, it was included in the SAL.

Literacy is measured using a five point scale for each of the above three types of literacy. People graded at Level 1 are said to have very poor skills and could be expected to experience considerable difficulties in using many of the printed materials encountered in daily life. People graded at Level 5 are said to have very good skills.

Direct assessments of literacy and numeracy of school aged children are also made on an annual basis through tests administered to those in Years 3 and 5 of school which are organised by State and Territory Education Departments. Results of the literacy tests have been released by the Ministerial Council for Education, Employment, Training and Youth Affairs (MCEETYA) under the 'National Literacy and Numeracy Plan' adopted in 1997. The national plan developed national benchmarks in literacy and numeracy for selected school year groups and promoted national reporting on student achievement against the benchmarks.

Transition to work — One indicator of the worth of education is to determine its value to the labour force, and it is also important to assess the ability of graduates to gain employment and the increased earning capacity with increasing levels of education. Key measures used to indicate the transition of the population from education to work include the number of people with qualifications by their employment (and unemployment) status, labour force status measures of people who were studying for a qualification in the previous year, including whether they completed that course or left without completing it, and after allowing for age differences, average/median income by education level.

DATA SOURCES

Given the importance of education and training in relation to other areas of social concern, education and training data are collected in number of ABS and non-ABS household and administrative collections. The detail of data varies depending on the collection and its purpose. Many ABS household surveys contain questions on level and field of educational attainment (e.g. Health Survey, Survey of Disability, Ageing and Carers, National Survey of Aboriginal and Torres Strait Islander people), and many also contain questions on participation in education (e.g. the Labour Force Survey and many Labour Force Supplementary Surveys). Details on national surveys and collections which include education and training data can be found in the 'Directory of Education and Training Statistics' located on the education and training theme page of the ABS website <URL: <http://www.abs.gov.au/ncets>>. The following lists those sources with a particular focus on education and training related issues.

Transition from Education to Work Survey (ABS)

Transition from Education to Work is an annual, household-based ABS survey which provides information on the characteristics of 15–64-year-olds who are currently in the education system, or who were studying in the previous calendar year. The survey gives a broad picture of people both attending and not attending an educational institution — their sociodemographic status, status in the workforce, level of education and the type of work they are now engaged in. It also provides a measure of the number of apprentices in the population. This information has been collected annually since 1983, allowing for a long time series analysis of apprenticeship participation.

National Schools Statistics Collection (ABS)

The National Schools Statistics Collection is an annual administrative data collection conducted as a collaborative arrangement between State, Territory and Commonwealth education authorities. The collection is managed by the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) Task Force on School Statistics, of which the ABS is a member. The purpose of the collection is to provide data about government and non-government schools in all States and Territories that can be compared on a national level.

Survey of Education and Training (ABS)

The Survey of Education and Training (SET) is currently a four yearly survey, most recently conducted in 1997 and 2001. Prior to the 1997 survey, similar collections were conducted in 1989 (How Workers Get Their Training) and 1993 (Training and Education Experience). These earlier surveys placed greater emphasis on training than on education. The survey provides information on education and training outcomes, with a focus on pathways taken by people in education and training, and on access to education and training. It also provides data on whether a student received any form of Government support and the type of employer support provided (e.g. payment of HECS fees, paid study or training leave, in-house training, etc.).

Survey of Aspects of Literacy (ABS)

The Survey of Aspects of Literacy, conducted in 1996, presents a national profile of Australians' literacy skills. There were two components to the survey. The first comprised an interview collecting sociodemographic information and respondents' self-perception of their literacy skills. The second was an objective assessment of some literacy skills using tasks of varying difficulty sourced from real life (e.g. bus timetables). These tasks assessed different aspects of literacy (see details above).

Training Expenditure Survey (ABS)

The Training Expenditure Survey, last conducted in 1996, provided estimates of the paid time employees spent receiving structured training (e.g. training activities which have a predetermined plan and format designed to develop work-related skills and competencies). The survey collected information on the direct cost to employers of having employees on training courses and also information on training undertaken outside normal working hours at no expense to the employer. Similar surveys were conducted in 1990 and 1993.

Training Practices Survey (ABS)

The Training Practices Survey was last conducted in 1997, and collected information on training practices as they applied to the supplying organisation as a whole as opposed to training experienced by individual employees. Reasons for providing training were gathered by employer size, by sector and by industry. A similar survey was conducted in 1994.

Census of Population and Housing (ABS)

The five yearly Census of Population and Housing includes detailed information on education for small geographical areas and population groups with the capacity to cross classify data on education, such as educational attainment, by detailed variables including occupation, industry and income. Education information in the Census includes the educational attainment of all people aged 15 years or more, including the highest level of post-school qualification, the field of study, the year post-school educational qualification was completed and the age left school (prior to 2001; for 2001, highest level of schooling completed). The Census also provides educational participation information for people of all ages (from preschool to higher education) including full-time/part-time status and the type of educational institution attending. The Census is one of the few sources that provides data on the education for all age groups in one data source.

Higher education collections

The Department of Education, Training and Youth Affairs (DETYA) maintains a number of collections of education data. They collate administrative data obtained from each higher education institution (the Higher Education Collection). This information is released by DETYA in the form of publications on students, staff and finances and is one of the key sources of information about this sector.

Vocational education and training

The National Centre for Vocational Education Research (NCVER) collects administrative data on vocational education institutions. It publishes statistics covering the students, staff and financing of TAFEs and other vocational institutions. It also provides information on apprentices and trainees (or Contracts of Training), conducts Student Outcomes Surveys of VET graduates, and a survey on employment satisfaction for VET students.

Longitudinal Surveys of Australian Youth

The Australian Council for Education Research (ACER), with support from DETYA, conducts the Longitudinal Surveys of Australian Youth (LSAY). The project studies the progress of several groups of young Australians as they move from school into post-secondary education and/or work. The information collected from the surveys is used to provide a picture of what young Australians are doing and how this group changes as it gets older. The LSAY program accumulates data on cohorts of young Australians as they move through education and training and into the labour market. The first cohort of Year 9 students in the current program for LSAY was selected in 1995. A second cohort of Year 9 students was selected in 1998. Both cohorts are nationally representative samples and are contacted annually to provide information on their education, training and work activities. Earlier programs of

Longitudinal Surveys of Australian Youth *continued*

longitudinal studies in Australia include: Youth in Transition conducted by ACER; and the Australian Youth Survey (and its predecessor, the Australian Longitudinal Survey) conducted by DETYA.

Graduate destination surveys

The Graduate Careers Council of Australia conducts annual surveys of the destinations and starting salaries of higher education graduates. It produces detailed information about both bachelor degree graduates as well as those graduating with a post-graduate diploma, masters, doctorate or other post-graduate qualification. The information available includes employment status, type of work performed, further study undertaken, and earnings of graduates in their first full-time employment.

Expenditure on Education

Private expenditure on education and training is available from the Household Expenditure Survey (HES), and surveys such as the ABS Employee Earnings and Hours survey provide data on the cost of educators' earnings. Data on government expenditure on education is taken from the system of Government Financial Statistics (GFS). Information on expenditure on education is released by the ABS annually in *Government Finance Statistics, Education, Australia* (Cat. no. 5518.0.48.001). This bulletin indicates the extent and direction of both government and private expenditure in the field of education. Outlays on education by Commonwealth, State and local authorities and Universities are shown classified by economic category. For Commonwealth authorities, details are shown of grants to the States for educational purposes. Total outlays for Commonwealth Government, State, Territory and Local governments are shown by education purpose categories.

International comparisons of mathematics and science achievement

Trends in Mathematics and Science Studies (TIMSS), formerly the Third International Mathematics and Science Study, is an international survey of students' mathematics and science achievement in which Australia has participated. Previous small scale mathematics studies were run in 1964 and 1974 and previous science studies were run in 1971 and 1988. TIMSS was run in 1994–95 in Australia by the Australian Council of Education Research on behalf of the International Association for the Evaluation of Educational Achievement. It was repeated in 1998–99 and is scheduled again for 2002–03. There are three components to this survey; the student survey, a teacher survey, and a principal survey.

State and Territory Education Departments

Each of the State and Territory Education and Training Departments undertake their own separate data collections. The data on Year 3 and Year 5 literacy results collected by each State and Territory Education Department have been brought together by identifying the proportion of students in each State and Territory to reach the national literacy benchmarks. The proportion reaching the national literacy benchmarks have been separately identified for male and female students, Indigenous students and those students with a language background other than English. State and Territory Boards of Studies collect data on subjects being studied by students in upper secondary school and the achievement of students in the final

State and Territory Education Departments *continued*

year of schooling, however currently the data is not nationally comparable given the differences between the collections. At present, there are attempts to improve the comparability between these collections.

Other data sources

Many ABS surveys contain education and training data, including the Child Care Survey which collects information on children who attend preschool. Other non-ABS collections containing education and training data include the National Indigenous Preschool Census, commissioned by DETYA to collect the demographics of Indigenous preschool students from recognised preschools; the Longitudinal Survey of Immigrants to Australia run by the Department of Immigration and Multicultural Affairs which identifies the qualifications and education and training experience of immigrants to Australia; and the Overseas Student Statistics collected by Australian Education International which provides details on overseas studying in Australian education institutions or in off-shore campuses of Australian universities.

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CHAPTER **6** **WORK.....**

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How does work relate to individual wellbeing?

Work allows individuals to contribute to their community and can enhance their skills, social networks and identity. Paid work is a major source of economic resources and security for most individuals. People without paid work may be at risk of poverty and isolation. People's wages, working conditions, job tenure, and the amount of opportunity or risk associated with their work, can also affect their wellbeing.

How does work relate to wellbeing at the societal level?

The goods and services necessary for life and material comfort must be produced through work, just as the care and nurture of children and other family and community members requires work. Work has the capacity to generate and support communities through the goods and services it creates, and through the training, infrastructure and socialisation it provides. The labour force is a fundamental input to economic production, and its size and composition are crucial factors in economic growth.

What are some key social issues?

- Matching the skills, education and employment needs of the population to employment opportunities and the needs of industry and society.
- Ensuring remuneration practices provide people with sufficient earnings for their work, and that employment and working conditions are fair, safe and non-discriminatory.
- Ensuring people's work meets their need for income, security, stability, job satisfaction and career opportunity, and provides adequate means to accrue savings for retirement.
- Monitoring trends in unemployment, underemployment and overwork, and changes in technology, industry or working arrangements and practices, to inform social policy.
- Access to employment opportunities for all population groups.
- Through effective employment programs and strategies, assisting groups in need (e.g. the long term unemployed) to find work and to reduce their dependency on welfare.
- Monitoring productivity of the labour force and its contribution to economic growth.

What are some key definitional challenges?

There can be challenges in establishing criteria that universally differentiate between categories of labour force activity, and interpretation of what comprises underutilised labour supply may vary depending on the purpose of analysis. In some cases, indicators of marginal attachment to the labour force (e.g. number of discouraged jobseekers) or of underemployment, may be used to produce supplementary measures for analysis along with the unemployment rate. Defining working arrangements that are still evolving, (e.g. some casual and contract working arrangements) can be challenging. Where individuals operate their own business, classifying these people to 'employer' or 'employee' may also present challenges.

What are the main measurement issues?

- Work and labour frameworks need to be stable over time to support time series analysis, but also need to be relevant to contemporary labour market phenomena such as emerging working arrangements that depart from contractual or structural norms.
- Differences between labour force statistics derived from different sources can be explained but are generally difficult to reconcile.
- It can be difficult to quantify and value unpaid and voluntary work.

DEFINING WORK

The activities associated with producing the materials, services and infrastructures needed for living, for living well, and ensuring future survival, can be called work. People need to produce or acquire food, shelter, and other basic necessities of life. In order to prosper, families and communities generally want to enhance these basic necessities, produce more nutritious food, build more comfortable, luxurious or secure dwellings, build community infrastructures, and so on. There are many other work activities that sustain human wellbeing, such as those associated with administration, transport, and communication. Families and communities also rely on the effort people put into caring for each other, especially for children, and on the work involved in sustaining natural resources.

Work and the economy

While many people provide their own housekeeping services, grow at least some of their own food, or fix their own cars, there are very few who have all the skills, or produce all the materials, necessary to live. Instead, there is extensive division of labour. Some people produce food, others transport and distribute it; some are builders, and others provide communication services. This division of labour enables skill specialisation and thereby contributes to the development of technology. As well, with this dispersal of skills comes the necessity for exchange. Within families, caring services are exchanged freely, but more generally, goods and services are exchanged in the marketplace. In its simplest sense, a marketplace, or economy, is a forum in which the goods or services owned or produced by one individual can be exchanged for the goods or services of another, potentially allowing each person access to the full variety of goods and services necessary for living. The division and exchange of labour tends to contribute to the wellbeing of society by bringing a greater range of specialised goods and services into circulation. In Australia work is often oriented toward market exchange, whereas, in some other countries, higher proportions of people are self sufficient.

There are many other connections between the work people do and the economy. People can exchange work itself for payment, which allows them to purchase goods and services. The exchange of labour for remuneration comprises the 'labour market' – an integral element of the broader national economy. Thus the economy is vitally dependent on work both because it produces the goods and services that are the focus of economic exchange, and because it provides consumers with income to spend. And work-related structures (e.g. wage, occupation or industry structures) are affected by economic interventions. For these reasons, work-related data often simultaneously signpost both the productivity and the welfare of the community. For example, employment and unemployment measures can indicate the contribution of labour to the national economy, but also the socioeconomic status of particular groups, or the wellbeing of regions and communities.

Because of the relevance of work to both social and economic issues, a large amount of effort has been put into defining and measuring work. Traditionally this has focused on work that is directly and immediately linked to economic production. Although household and voluntary work is vital to economic growth as it supports

Work and the economy continued

the welfare and growth of the community at all levels, it is not directly connected to the economy in the same way as, say, work that produces food for commercial distribution. Thus household and voluntary work is referred to in this chapter as non-economic work, and work that contributes directly to economic production, as economic work. Economic work mainly includes paid work and work oriented towards market exchange, but may also include work that contributes to people's subsistence (e.g. the home production of food).

People who are engaged in economic work are said to be economically active. Another group that are economically active are those who would like to have paid work but can not obtain it for one reason or another. Because these people are available to contribute to the production of goods and services, but are not able to, they represent underutilised labour. They are economically active because they are an active element in the labour market supply equation. These people are usually defined as unemployed. They are seen as distinct from people who are voluntarily inactive, e.g. because they are retired, or have other activities, such as caring for children, that take up their time. People in these latter situations are defined as not economically active.

Deciding whether a particular activity should be classified as economic is not always straightforward. Some work exchanges do not involve monetary remuneration, yet contribute directly to the production of goods and services, for example, where family members work unpaid in a family business. Work can also move between the economic and non-economic sectors over time and in different circumstances. For instance, the last few decades have seen the movement of various types of unpaid household work such as food preparation and childcare into the marketplace, supporting growth in hospitality and child care industries.

There are also challenges involved in classifying the population into those who are employed, those who are unemployed, and those who are not economically active. For example, people who are substantially retired from the labour force may continue to work now and then. People who have been unemployed for an extended period and gain temporary work may be considered employed in terms of economic activity, but, for social analysis purposes, may be more appropriately included with people classified as unemployed. Many of these conundrums are addressed by the International Labour Organisation's (ILO) labour force framework, which is one of several work-related frameworks discussed in the frameworks section below.

WORK AND WELLBEING*Individual wellbeing*

Satisfying and rewarding work can contribute to an individual's sense of purpose, identity and self worth. Work enables people to achieve defined goals, and is a means by which they contribute to the productivity and activity of their community. The workplace itself can be a community—within which individuals are valued, trained and rewarded. From a more practical point of view, paid work is crucial to individuals, and their families, because it provides them with income that enables them to consume and save, and thrive in other areas of wellbeing such as housing,

Individual wellbeing *continued*

health and education. Individual returns from work can continue into retirement, with the long term security provided by superannuation arrangements. In this sense, work affects people's income and wellbeing across their entire life cycle.

The psychological stress suffered by people who want to work but have no work can contribute to poor health, especially if these people have been unemployed over a long period. The health of individuals who have paid employment can also be affected by factors relating to their work, (e.g. by the type and amount of work they have, their working conditions, the stability of their employment, and the amount of control they have over these). Jobs with little or no opportunity for skill development can be stressful, as can highly skilled occupations (e.g. flight control or emergency health care). Overwork, irregular working hours, or jobs that involve physical risk can also contribute to ill health. However, the effect of working arrangements such as irregular hours on wellbeing will depend largely on the preferences of the jobholder. Some people may prefer to work longer, shorter or more irregular hours at different stages of their working life, and stress is less likely to occur where work preferences are being met.

Work transactions inherently involve both employees and employers, and the wellbeing of these players is interrelated (with employers supplying jobs and employees supplying labour). Employers are affected by the supply, skill and capacity of the labour available to them, by the costs involved in hiring labour, and by work related trends and legislation. Not only work, but the working arrangements arrived at between employers and employees are central to individual and social wellbeing.

Unpaid work also affects the wellbeing of those performing it. The lack of value often attached to unpaid work can affect the self-esteem of unpaid workers. Caring work, for children or for people with illness or disability, can be isolating, and the opportunities and income available to those involved in this work may also be limited. On the other hand, there are many non-material rewards associated with voluntary and caring work that can enhance wellbeing.

Wellbeing of the society

The fact that work is a major contributor to the nation's economy means it is centrally important to the wellbeing of society. The labour force is a fundamental input to domestic economic production, and its size and composition are therefore crucial factors in economic growth. Economic work also contributes directly and financially to social welfare and aged support through taxation and superannuation arrangements. Non-economic work also contributes to economic wellbeing by, for example, rearing children who eventually supply the labour force, supporting people involved in economic work, and delivering unpaid welfare services, such as caring, throughout the community.

Widespread unemployment can affect the prosperity, or even threaten the existence, of communities. Increases in the number of people out of work or in financial crisis mean greater numbers of people are dependent on welfare, which can put pressure

Wellbeing of the society *continued*

on the social environment in other areas of concern, (e.g. crime and health). Reduced employment opportunities in particular industries can result in income disparities throughout the population.

The workplace can be an important forum where people interact, and younger people are socialised in adult behaviour. This arena for developing positive social functioning may be limited in communities where there is widespread unemployment. The amount and quality of unpaid work, both household and charitable, done within a community, also have implications for the health and cohesion of that community.

SOCIAL ISSUES

Work preferences and the life cycle

The life cycle context of individuals, and their preferences in relation to this, will determine the degree to which work affects their wellbeing, and the kinds of work related issues that are relevant to them. In other words, people may prefer a variety of different working arrangements across their life cycle to cater to the demands of education, family and health. Many issues of interest in the area of work involve the analysis of employment and socioeconomic context in relation to life cycle transitions. For instance, questions of interest include:

- are students working in part-time or in casual jobs going on to obtain full-time permanent employment in their prime working years?
- are parents able to successfully re-enter the paid workforce after a time away caring for children?
- are unemployed people able to find work and then maintain this over time?
- are workers fully equipped to make the transition from work to retirement?

Many of these kinds of issues, and issues relating to early retirement, lifetime income and income dispersion, intergenerational equity and stepping stones to work can be usefully informed by longitudinal studies, as opposed to cross-sectional time series.

Occupation and industry restructuring

Significant changes in the nature of work, and in working arrangements, have occurred over the last few decades, and these changes provide context for many of the social and policy issues currently surrounding paid work. Shifts in the types of industries that provide the bulk of employment opportunities for people have changed the types of skills that are in demand. This has affected employment opportunities for particular groups, and reduced opportunities for people whose skills have become outmoded. For example, during the last thirty years nearly all employment growth has been within service industries. Even within traditional industries, technological change has meant new skills, such as computing and communication skills, have gained in importance, adding to a shift away from manual skills toward office based skills.

Career pathways

Career pathways have also undergone change. Where previously many workers trained for a single profession or vocation, and expected to have a job for life, people can now expect to change careers more often in their lifetime, and may need to re-train on several occasions, either in order to begin new careers, or to remain up-to-date within their existing career. Traditional seniority based pathways have given way to career pathways involving performance based progression, lateral movement within organisations, or movement between vocations and organisations. These changes, and a reduced emphasis on vocation in the labour market, have affected the way in which people gain and maintain employment, and the kinds of social and personal skills people accumulate.

Hours of work

Changes in the number of hours people work, in the average length of the working week and the amount of shift work people do have also occurred. With increases both in the number of people who are working fewer hours, and in the number of people working longer hours, there are concerns that the workforce could polarise into low income, part-time workers who want to work more hours, and overworked full-time workers suffering ill health, fatigue and a deteriorating quality of working and family life.

Job security

Associated with shifts in industry and social structures, there have been increases in casual, contract and part-time work. For instance, part-time and casual work characterise service industry jobs and are often preferred by women, who form a far greater proportion of the workforce than previously. While potentially providing greater bargaining power to workers and new freedoms to people seeking flexible working arrangements, the emergence of short term and precarious working arrangements may also affect people's capacity to ensure their own and their family's financial security.

Labour market deregulation

While the changes in the working environment outlined above have been associated with rapid and continuous change in technology, and with changes in social attitudes, they have also been linked to labour market deregulation. The restructuring of Australia's industrial relations system has changed the roles of the institutions that regulate work, in particular, those that regulate working conditions, work practices, and wage determination. Traditionally workers' pay was set out in industry awards, and pay rises and working conditions were negotiated through trade union organisations. Now far fewer awards exist, and there has been a rapid decline in trade union membership, partly reflecting industry restructuring away from well unionised sectors. Enterprise and other decentralised bargaining has spread and there is now an increasing number of employees whose working conditions and wages are regulated by an enterprise or individual agreement.

The social implications (whether positive or negative) of labour market deregulation are of interest to government and the community. For example, movement away from centralised wage determination may affect the dispersal of earnings between industries and within occupations, possibly leading to income inequalities. On the

Labour market deregulation *continued*

other hand, the opportunities presented by labour market deregulation may result in an overall growth in earnings. Increases in casual, contract and temporary employment jobs creates a potential for reduced job security and may affect the type and number of benefits available to workers. However, a greater range of choice in working arrangements may mean the preferences of some workers are more readily met. Employment benefit arrangements may change in more conventional employment arrangements which have been deregulated, again with the potential for both positive and negative implications for workers. There is also an interest in whether or how productivity gains from a deregulated labour market can be sustained, in changes in the type and level of industrial disputation, and in the changing role of trade unions.

Work and training

The areas of work and education and training can influence one another significantly. For example, increased education retention rates can have the effect of reducing the number of young people working or seeking full-time work. Similarly, reduced employment opportunities for young people can boost education retention rates. More generally, education results in returns to individuals in the form of higher lifetime incomes and a lower risk of unemployment, and to the society in the form of skilled labour and the benefits associated with that. There is concern, not only about the need to train and re-train people for work, but that training is effectively tailored to meet the needs of specific industries. For example, training that is directed towards supplying industries within particular regions may assist in reducing unemployment problems within those regions. Thus the transition of people from education into the labour force is an important focus for work statistics (see also Chapter 5 — Education and training).

Unemployment

Often the most prominent work-related concern, in the media and in community perceptions, is the level of unemployment. This is because unemployment is a well established indicator of economic conditions and future economic performance. It is also because unemployment, particularly long term unemployment, can potentially put people at risk of welfare dependence. Issues associated with unemployment relate to how work can be found, the barriers to finding work, and why jobs are lost. Some questions at the heart of these include:

- Are some job search methods more successful than others?
- How successful are labour market assistance policies and programs, and which groups should these target?
- Do people experience episodes of temporary employment before settling into more permanent employment?
- What circumstances or socioeconomic characteristics put people at risk of becoming unemployed or long term unemployed, or assist people to find work more quickly than others?

Long term unemployment

For the individual, the possibility of escape from unemployment moves further away as the duration of their unemployment increases. Long term unemployment is associated with a loss of skills and on-the-job training, a reduced intensity of job search, and a reluctance by employers to hire. Some people may cease to look for work altogether, as they become discouraged about their prospects. There is considerable interest in the effects of long term unemployment on people's wellbeing, and in ways of reducing long-term unemployment.

Regional issues

Unemployment, or change in occupation and industry structures, can create particular problems in rural and regional areas. These areas may be more reliant on single industries to maintain employment levels, population numbers and social infrastructures. Some large regional towns built around specific industries may not offer the variety of job opportunities available in urban areas. Young people may leave these towns in search of employment, further reducing the social resilience and regenerative properties of these regions.

Unpaid household work

Over the last few decades there has been an increased interest in identifying, acknowledging and valuing the unpaid work that supports healthy home and community life. Unpaid work done in and around the house includes cooking, cleaning, washing, gardening, home maintenance, caring for children and household management. The amount of time spent on this work by different family members, and particularly the distribution of this work within the household is associated with issues of equality between men and women. Balancing paid and unpaid work responsibilities, particularly those related to commitments to family, is also an important issue, featuring strongly in negotiations on workplace conditions.

Voluntary work

From sports grounds to nursing homes, volunteers enrich many social and welfare networks and make an invaluable contribution to the Australian community. The extent to which people in a community participate in volunteer work can be an important indicator of that community's level of social capital. It can indicate what proportion of the population hold, and act on, values relating to altruism, contribution, and charity, and the extent to which governments need to make up any shortfall in the care and support available to the community. Also of interest is the extent to which voluntary work interacts with the paid workforce. For example, young people or people without paid work may use voluntary work as a stepping stone to obtaining paid employment. The amount of voluntary work being undertaken in a community may also affect the amount of welfare supplied to that community through government support infrastructures.

POPULATION GROUPS

Men and women

Labour force participation and working experiences differ for men and women, particularly in association with different life cycle stages. While there have been changes in the kinds of jobs held by women, occupational segregation remains a

Men and women *continued*

feature of the work force. Apart from reflecting differences in preferences, the concentration of men and women in particular occupations and industries can be related to a number of other factors such as attitudes towards expected roles of men and women. There is an interest in challenging occupational segregation, particularly where traditional occupations for women attract low levels of remuneration. Another key issue is the existence and extent of any earnings differentials between men and women doing the same job.

Lone parents

Lone parents may be more vulnerable to the problems associated with unemployment. Without the support of a second parent, these people may be struggling to adequately fulfil both the role of parent and of breadwinner in the family. In meeting this need, they may need to take lower paying part-time jobs. Unemployment and the loss of income associated with unemployment may be particularly damaging to the financial stability of these people and their families.

Migrants

Immigration has played a major role in the growth of Australia's population and economy and a major issue relating to migration policy continues to be its impact on the labour force. The wellbeing of migrants themselves, in terms of work, is also of concern. Recent migrants may have valuable educational qualifications but find it difficult to obtain work in relevant fields due to cultural or language difficulties. Finding appropriate work within an Australian workplace can be an important factor in determining how positively these people perceive their move to Australia, and how well they are able to adjust to their new environment and provide support for their families.

People with disability

The extent to which individuals are able to participate in work can be substantially affected by physical, psychological or intellectual impairments, and there is a need to ensure people with different types and levels of disability have access to suitable employment opportunities. How well working arrangements within different jobs are able to meet the needs of people with disabilities is also of interest. For example, physical aids may be necessary to ensure people with disability are not disadvantaged in the workplace, as well as flexibility in working arrangements and expectations.

Older people

Changes in the types of industries and jobs that dominate the labour market, changes in processes within industries, and a possible lack of transferable skills, have meant that older people may have more difficulty finding work. As a result, people from some industries or occupations are over-represented among older jobseekers. Other issues for older jobseekers are their relative success in obtaining work compared to young jobseekers. The reasons why more older people are seeking early retirement, and the social and economic implications of this are also of interest.

Young people

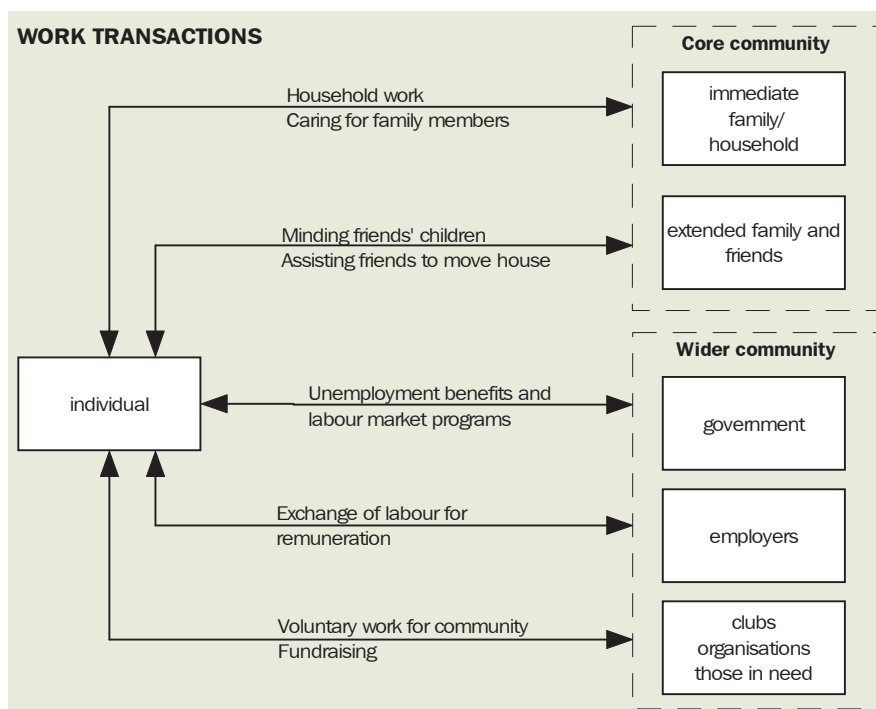
While large proportions of young jobseekers gain employment relatively quickly, establishing successful pathways for young people from school or tertiary education into paid employment is a recurring issue. There is interest in understanding factors associated with success in securing work (e.g. education and previous work experience), and in providing young people with the knowledge and skills needed to successfully obtain work. These issues are particularly relevant in an environment of rapidly changing technology and working arrangements. Young people who leave school early may be able to find work while their lower rates of pay are attractive to employers, but may be at a disadvantage as they become eligible for adult wages.

Indigenous people

Aboriginal and Torres Strait Islander people generally experience considerably higher levels of unemployment than the total Australian population. One factor contributing to this is the scarcity of employment opportunities in remote locations. Others include the adequacy and cultural appropriateness of educational facilities available to Indigenous people, and the low level of educational qualifications often held by Indigenous people. In recognition of the particular difficulties faced by people living in remote areas the Community Development Employment Projects (CDEP) scheme has been operating since 1977. This scheme provides Indigenous communities with funds to pay members working on community projects, in effect providing jobs for people who would otherwise receive an unemployment allowance. CDEP is particularly important in remote areas where it accounts for a large proportion of all jobs held by Indigenous people.

FRAMEWORKS

Work is associated with some of the most important transactions people undertake in endeavouring to maintain or improve their wellbeing. Within families and communities, transactions involving caring work ensure the health of members. Within the marketplace, intangible assets, such as skills, educational qualifications,

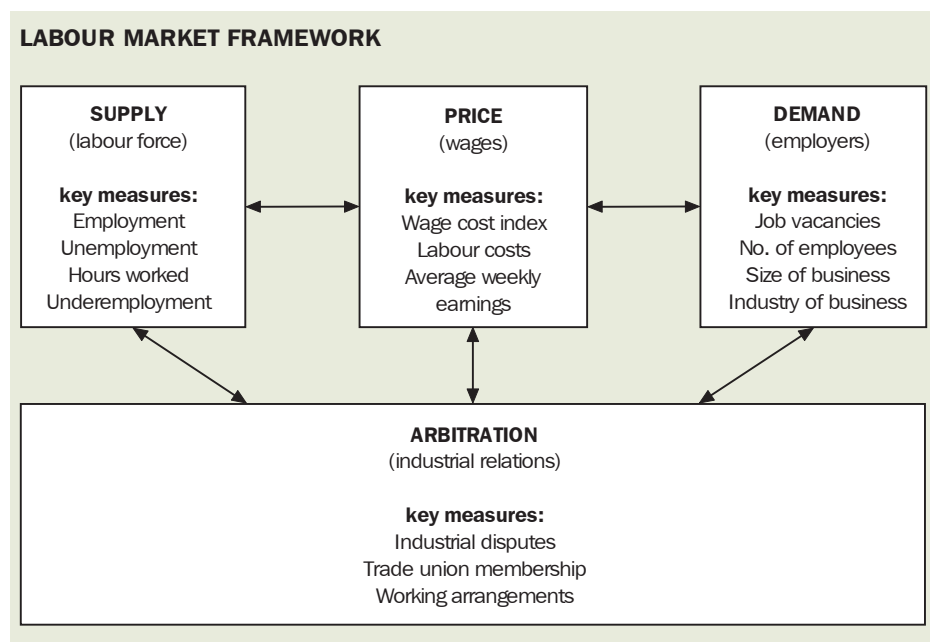


FRAMEWORKS *continued*

personal fame or physical capability, can be exchanged for money or other goods and services via job contracts. In all, work involves a range of providers and receivers and is a major factor facilitating the exchange of human and economic resources. Some examples of work transactions are shown on the previous page.

ECONOMIC WORK

While there are many connections between economic and non-economic work, in the collection of work statistics, there is generally a broad level differentiation between these two aspects of work. Economic work, or, more specifically, labour market activity, can be understood as a demand/supply transaction. On the demand side are employers, who have a need for labour as a factor of production. On the supply side, the economically active population is the source of labour. Within this model, data about earnings, compensation of employees and labour costs describe the price of labour. Industrial relations data describes the arbitration of value and conditions between players, with industrial relations organisations supporting the exchange of labour at all stages of the supply/demand transaction. Each of the elements of this supply/demand framework has some key measures associated with it, some examples of which are shown in the diagram below.



Supply measures: The labour force framework

Supply measures, such as employment and unemployment as measured by the labour force framework (see diagram on page 13), are the main basis for the analysis of social issues. The ABS labour force framework and the concepts and definitions associated with it are based on recommendations of the International Labour Organisation (ILO) which have been developed through successive International Conferences of Labour Statisticians since the end of the First World War in the early 1900s. It is therefore similar to labour force frameworks used around the world. The

Supply measures: The labour force framework *continued*

framework is used in many ABS surveys and the Population Census. However, the main survey associated with this framework is the monthly Labour Force Survey (LFS), which provides official measures of national employment and unemployment.

Essentially, the framework is a map of the population from a labour supply perspective. It is concerned with identifying people who are contributing to the economy through their labour, or who are ready, willing and able to do so. In other words, it is concerned with identifying the economically active population.

To this end, people are classified into three mutually exclusive categories:

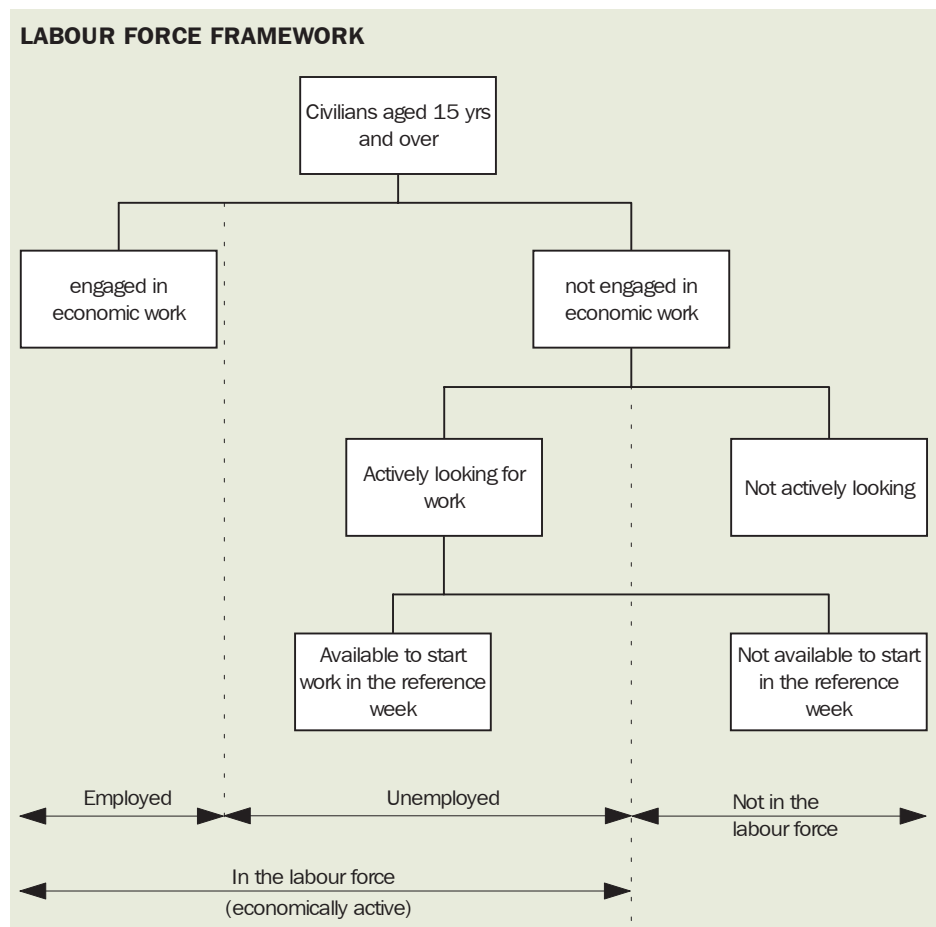
- employed;
- unemployed; and
- not in the labour force.

Each of these categories is strictly defined, according to the activities people were undertaking within the specified reference period (the previous week in the LFS). In general terms, people who have been working for pay or profit are classified as employed. Those who were not undertaking paid work are classified as unemployed if they were looking for work, and available to start work in the reference period. The category not in the labour force represents the residual population who were neither working for pay nor unemployed. The categories employed and unemployed together comprise the currently economically active population, or, the labour force.

The framework applies priority rules to ensure that each person is classified into only one of the three categories. In other words, someone who has been both working and looking for work will only be classified as employed, as the activity working has higher priority than the activity looking for work. Thus the labour force status categories are mutually exclusive and exhaustive measures of the population. The employed and unemployed categories are described in more detail below.

Employed

A person is classified as employed if they worked for pay, profit, commission or payment in kind, for one hour or more in the week preceding the date of interview, or had a job from which they were temporarily absent (e.g. because they were sick or on holiday). On the face of it, setting the minimum quantity of work at one hour per week might suggest an unnecessary bias towards employment. While a person may have worked for a small number of hours in the survey reference week, they may otherwise be substantially without work. People in this situation may even be legitimately receiving unemployment benefits. However, some clear cut boundary must be chosen and adhered to in order to provide a basic measure that is consistent and accurate. The one chosen (at least one hour of work) is consistent with the ILO definition, and allows international comparison. The one hour minimum also ensures that all economic activity is identified, as required by the System of National Accounts, and that unemployment is only measured for those who were completely without work. This measure can be balanced by a range of additional information about current and usual hours worked, including estimates of the number of people who worked for a small number of hours in the reference week, and data about whether they would prefer to work more hours.



Employed continued

Several key variables are nominated within the labour force framework as contributing to an understanding of the volume and characteristics of the employed labour force, including:

Status in employment — The status in employment variable describes employed people according to their relationship with the enterprise for which they work. Each employed person is classified according to whether they are an employee (including those who operate their own incorporated business), an employer, an own account worker (someone who operates their own unincorporated business without employees), or a contributing family worker (who works without pay in a family business). Thus this variable distinguishes between paid employment jobs, where remuneration is not directly dependent on profits, and self-employment jobs, where remuneration is directly dependent on profits.

Hours worked — Hours worked information is important in understanding the extent to which people contribute to the labour force, and differentials in earnings statistics. It assists in identifying potential areas of underwork and overwork and is used in measuring the productivity of the labour force. The hours an employee

Employed continued

usually or typically works may be different to the hours they actually worked in the survey reference week. It may be important to have information about both types of hours worked: usual and actual.

Full-time / part-time status — Employed people are considered full-time if they work, or usually work, 35 hours or more a week.

Unemployed

Occupation and industry — Although they do not contribute to a volume or size measure of the labour force, occupation and industry of employment are crucial sociodemographic and economic indicators, indicating the quality or characteristics of the labour force. Occupation and industry measures support analysis of a range of wellbeing and industrial issues, including education and training issues. Labour market trends can affect occupation and industry measures. For example, the outsourcing occurring in recent decades has seen many services traditionally undertaken in house outsourced to specialised services providers (e.g. payroll, training or recruitment services outsourced to specialist companies). As employees performing these functions are no longer categorised under the industry of the umbrella employer, this may have contributed to a measured growth in employment in service industries. Information about the classifications of occupation and industry used by the ABS is presented on the following page.

To be classed as unemployed, people must be without work, must have taken active steps to obtain work, and also be currently available for work. Actively looking for work includes such actions as writing, telephoning or applying in person to an employer for work. The active search criterion is predicated on the notion that a person must have done something specific to obtain work before being classified as unemployed, and that a general declaration of being in search of work is not sufficient (e.g. people who have looked in newspapers for advertised jobs would need to take some other more active step, such as answering a job advertisement, before being classified as unemployed). The criterion of being available to start work supports one of the key objectives of the framework: to measure the number of people currently available to contribute to the production of goods and services. Variables that can add valuable contextual information to unemployment data are:

Duration of unemployment — The duration of unemployment is measured as the length of time unemployed people have been continuously unemployed. People who have been unemployed for one year or more are classified as long term unemployed. Some difficulties encountered when measuring duration of unemployment as it can be difficult to determine whether a job seeker has consistently met the criteria for unemployment each week over a long period.

Full-time / part-time status — Unemployed people can be classified either as looking for full-time work or looking for part-time work. This information can assist in understanding the demand for full-time and part-time positions.

Australian Standard Classification of Occupations (ASCO)

Now in its second edition, ASCO, is a skill-based classification of occupations which defines an 'occupation' as a set of jobs with similar sets of tasks. Occupations are classified according to two main criteria — skill level and skill specialisation. The skill level of an occupation is a function of the range and complexity of the set of tasks involved — the greater the range and complexity of the set of tasks, the greater the skill level of the occupation. The skill specialisation of an occupation is a function of the field of knowledge required, tools and equipment used, materials worked on, and goods or services provided in relation to the tasks performed. The classification has a five level hierarchical structure which identifies 986 occupations at its most detailed level and 9 major groups at its broadest level. The major groups are distinguished from each other on the basis of skill level, and, where necessary, the broad concept of skill specialisation, as follows.

- 1 Managers and Administrators
- 2 Professionals
- 3 Associate Professionals
- 4 Tradespersons and Related Workers
- 5 Advanced Clerical and Service Workers
- 6 Intermediate Clerical, Sales and Service Workers
- 7 Intermediate Production and Transport Workers
- 8 Elementary Clerical, Sales and Service Workers
- 9 Labourers and Related Workers

For further information refer to *ASCO — Australian Standard Classification of Occupations, Second Edition* (Cat. no. 1220.0).

Australian and New Zealand Standard Industrial Classification (ANZSIC)

The industry classification (ANZSIC) provides a framework for the grouping of businesses which carry out similar economic activities. Information about the industry of employment of a person is collected by reference to the industry of the business in which the person is employed. The ANZSIC has a structure comprising categories at four levels, namely Divisions (the broadest level), Subdivisions, Groups and Classes (the finest level). The 17 divisions within the ANZSIC provide a broad overall picture of the economy.

- | | | | |
|---|--------------------------------------|---|---------------------------------------|
| A | Agriculture, Forestry and Fishing | I | Transport and Storage |
| B | Mining | J | Communication Services |
| C | Manufacturing | K | Finance and Insurance |
| D | Electricity, Gas and Water Supply | L | Property and Business Services |
| E | Construction | M | Government Administration and Defence |
| F | Wholesale Trade | N | Education |
| G | Retail Trade | O | Health and Community Services |
| H | Accommodation, Cafes and Restaurants | P | Cultural and Recreational Services |
| | | Q | Personal and Other Services |

For further information refer to *Australian and New Zealand Standard Industrial Classification 1993* (Cat. no. 1292.0).

Currently vs usually active

In order to measure the current stock of people who are economically active, the ILO recommends a short reference period be used, e.g. the week preceding interview. The resulting measure is a 'snapshot' of labour force participation, and a series of these measures can be used to track movements in employment and unemployment over time, and to analyse trends. While this is effective and clear cut, some people move in and out of employment, unemployment or the labour force. For example, someone who is unemployed may obtain short term work then become unemployed again. In these instances, for the purposes of social analysis, people's usual labour force status may be of more interest than their immediate status. It is therefore possible to apply the labour force framework using a longer reference period, such as 12 months in order to differentiate between people who worked the whole year, those who worked part of the year, and those who did not work at all.

The unemployment rate

Analysts monitor unemployment because of its role as an indicator of current economic conditions, of future economic performance, and of economic hardship among the population. Estimates of unemployed people are based on the definitions outlined above, and are designed to measure available labour resources that are not being used in the economy. The unemployment rate is the percentage of unemployed people in the total labour force.

Because of the different uses to which unemployment data is put, the unemployment rate alone may not always fully meet the needs of analysts. It could be said, for example, that the official measure of unemployment understates labour underutilisation because it excludes people who want a job but are not looking for work, or people who are part-time workers who would prefer to work more hours. For this reason, there are three commonly recognised categories of people who are regarded as being potential labour resources: the unemployed, the marginally attached, and the underemployed. The latter two categories are described in more detail below. These three categories can be combined in a number of ways to produce measures that supplement the unemployment rate.

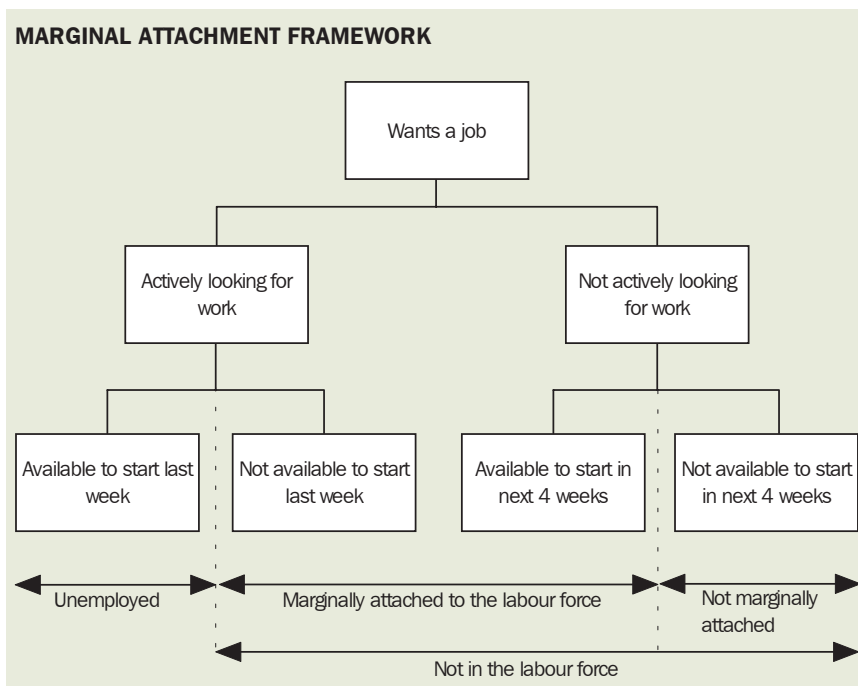
Marginal attachment

The way in which people are classified as not in the labour force, is clear cut: they are the residual population after employed and unemployed people have been accounted for. This clarity is important in a statistical framework where definitions need to be applied to a vast array of situations, and need to be used consistently over time and across different cultures. However, there will always be some people who are at the margins of such a classification. For example, people who wanted to work but were unavailable to start in the reference week because of illness, or the need to arrange child care, or who were not able to take active steps to find work in the reference week. Some regions may have so few employment opportunities that the options for undertaking active job search are limited. People who are discouraged

Marginal attachment continued

about their employment prospects may not be actively seeking work although they would like a job. To cater for these kinds of situations the ABS uses a framework that identifies people who are marginally attached to the labour force, as shown below.

Information about people with marginal attachment to the labour force can provide insight into some of the more complex wellbeing issues surrounding work, such as why people wanting work are not available to start work (e.g. attendance at education) or are not looking for work. It is also valuable in understanding the factors affecting people's ability to secure employment, and can provide focus for training or other labour market assistance programs. Data about the reasons those who want work are not actively seeking work allows a distinction to be made between those not actively looking for work because they are discouraged, and those not actively looking for other reasons. Those who are not actively seeking work because they believe they are too young or old, lack the necessary schooling or training, or have language or other cultural difficulties are classified as 'discouraged jobseekers' in ABS statistics. Others classified as discouraged jobseekers are those who say there are no jobs in their locality or line of work, or no jobs available at all. Discouraged jobseeker data can sometimes indicate the direction of future labour market trends as the populations described would tend to enter the labour force at some time in the future.

*Underemployment*

Statistics on unemployed and marginally attached populations reflect the inability of the market to provide jobs for every person who wants to work. An additional insight into the inability of the market to fully utilise available labour is provided by statistics on underemployment. Underemployment can take two forms:

Underemployment continued

Time related underemployment — In some cases a person may not be working as many hours as they would like, and are able, to work. They may work part-time because they are not able to find a full-time job, or work short-time for reasons imposed by the economic environment (e.g. temporary slowdowns in orders or shortages of materials). In technical terms, time related underemployment occurs when the hours worked by an employed person are below a threshold, and are insufficient in relation to an alternative employment situation which a person is willing and available to engage in.

Inadequate employment situations — In other cases a job may provide enough hours of work but be inadequate in other respects. For example, a person may be doing work that does not fully or appropriately utilise their skills or training. As there is great diversity in the ways in which employment can fail to meet the capacities or needs of workers, or even reduce their wellbeing, the definition of this non-time related aspect of underemployment continues to be under debate internationally. Many aspects of this type of underemployment are also difficult or complex to measure. Underemployment measures produced by the ABS are therefore currently limited to time related measures.

The framework identifying underemployed workers classifies employed people into three mutually exclusive groups:

- fully employed workers;
- workers who usually work part-time and did so in the reference week and want to work more hours; and
- workers who usually work full-time but worked part-time in the reference week due to economic reasons (stood down, short time or insufficient work).

Measuring underemployment can be complex, depending on the depth and focus of analysis required. For example, there are various sub groups that can be identified within these major groups, including those seeking additional hours, those available to start additional hours, those that meet both these criteria and those that meet neither. However, people's stated preference for more hours of work may be affected by a number of factors, including the hourly rates of pay available from alternative working situations (as they may be reluctant to accept extra hours for a lower rate of pay). In addition, while counts of the number of underemployed people can inform issues relating to equity and whether job preferences are being met, these counts may need to be supplemented by additional measures such as usual hours worked, and number of additional hours preferred, in order to inform more complex labour utilisation analysis. The way in which the ABS underemployment framework is designed, with its options for including and excluding criteria, enables it to be compatible with a variety of interpretations of underemployment, including the ILO definition of time related underemployment, and with measures of unemployment.

Price measures

A number of the key concepts surrounding the price or cost aspects of economic work can be treated differently depending on context. For example, wages can be seen to have several different functions. They play a role in providing people with

Price measures *continued*

income – the means of living – and are a large component of people's earnings. At the same time wages are a cost to employers. Finally, within the context of workplace bargaining and monitoring economic flows, wages can be seen as the price of labour, and can provide an indication of inflationary processes in the economy.

This may appear complex, but it is a natural consequence of the fact that economic work is both a factor of production and, through its connection to income, has a major influence on consumption. It is also because work is inherently associated with transactions between employees and employers. In fact, data about economic work is collected and analysed from two main perspectives: that of the job holder, or employee, and that of the employer.

There are four commonly used concepts associated with measures of the price or cost of labour that need to be clearly differentiated in terms of these two perspectives. These are: earnings; compensation of employees; labour costs; and labour productivity. Some generalised descriptions of these are provided below. (See also Chapter 7 — Economic resources, for discussion of concepts relating to economic work, e.g. income and earnings).

Earnings — This is the narrowest concept of the four. Earnings are defined from the perspective of the jobholder and, in general terms, are the remuneration and payments in kind received by the jobholder, usually at regular intervals, for hours worked or work done; together with remuneration for specified time not worked (e.g. for time on annual or sick leave).

Compensation of employees — This includes earnings but is a broader concept, and is defined from the perspective of the employer. In general terms, compensation of employees are the employer payments to employees for labour services. Compensation of employees includes the remuneration payable to an employee as earnings. In addition, it includes regular employer contributions to funds and schemes on behalf of the employee, which may or may not eventually accrue to the employee (e.g. contributions to superannuation funds or workers compensation insurance schemes).

Labour costs — This is also defined from the perspective of the employer. Broadly, labour costs are all costs incurred by employers in the employment of labour. Thus this concept is broader than both the concept of earnings and the concept of compensation of employees. As well as earnings, and other payments to employees for labour services, labour costs can include the indirect costs to employers of such things as recruiting and training employees, providing working clothes or equipment to employees, or providing welfare services (e.g. staff counsellor, canteen).

Labour productivity — The concepts of earnings, compensation of employees and labour costs are important elements in the analysis of the broader economic concept of labour productivity. In general, productivity is the relationship between the output of an economic unit and the inputs which have gone into producing that output (e.g. labour and/or capital). The more that outputs are greater than inputs, the greater the productivity of the process. Thus, productivity can be increased

Price measures continued

through better utilisation of resources. Labour productivity is the value of the output produced by a unit of labour, such as a person, or an hour of work. Labour productivity is usually measured as the amount of Gross Domestic Product (GDP) produced per hour worked. Changes in the inputs to labour can increase labour productivity. For example, labour productivity can increase as a result of technological change, changes in labour efficiency or change in other inputs such as capital. Higher labour productivity can potentially contribute to higher rates of return to labour.

ABS measures of these four concepts align closely with ILO definitions and the System of National Accounts (SNA) 1993, although some variations from these exist. As well, different variations of the generalised definitions above are applied in different surveys, depending on the survey aims and reference period¹ For example, some surveys will exclude irregular payments made to employees from their earnings measure as they are focusing on short reference periods, where others include these.

Measuring changes in earnings

When comparing changes in average weekly earnings over time, or differences in the earnings of different groups (e.g. men and women), it is important to take hours worked data into account. For example, much of the difference between men's and women's earnings can be explained by the different hours they work, as well as the sorts of jobs they do. Comparing the hourly rates of pay for men and women within specific occupation groups will allow differences to be identified more clearly.

Changes in average weekly earnings measure movements in the average wage bill, but they do not provide a reliable indicator of changes in wage rates. While changes in average weekly earnings may be the result of changes in wage rates of employees, they can also be caused by changes in the composition of the labour force. For example, if there is a change in the proportion of part-time earners in the labour force, or in the average number of hours worked by employees, average weekly earnings data will reflect this as a decrease or increase in earnings. Other compositional changes that can affect earnings data are variations in the distribution of occupations or in the proportions of male and female employees in the work force, changes in levels of skills within occupations, or variations in the distribution of employment between industries. The fact that this range of factors can affect average weekly earnings data has led to the development of a wage cost index.

The ABS Wage Cost Index (WCI) provides a direct measure of change in wage and salary rates. It is designed to measure change over time in the hourly rate of pay in employee jobs. It does this by taking a sample of specific jobs, establishing the wage rates for those jobs, and collecting ongoing information about any changes in the wage rates of those jobs. It is unaffected by broad level trends in the quality or quantity of labour purchased by employers overall, as it is only concerned with changes in the payment made for the sample of jobs. The WCI's main use is as a measure of wage pressures in the economy and therefore is useful for inflation

Measuring changes in earnings continued

forecasting. The ABS is currently developing a Labour Price Index that will perform a similar function to the WCI, but will incorporate 'non-wage' labour costs such as superannuation and payroll tax. (See also Chapter 7 — Economic Resources).

Demand measures

The number of current job vacancies is a key demand measure. When considered in conjunction with information about unemployment levels, job vacancy data can provide insight into the extent to which there is an imbalance between the available skills or capacities of the population, and proffered jobs. Other key demand measures produced by employer and business surveys include numbers of jobs, numbers of employees and industry of jobs.

Arbitration measures

Awards and enterprise bargaining — During the 1990s wage determination moved away from award-based centralised wage fixing towards decentralised agreement making at the enterprise, workplace and individual employee levels. Although these agreements are often underpinned by awards, the role of awards has been reduced principally to the status of a 'safety net' of minimum wages and conditions. Because enterprise bargaining is a relatively new phenomenon, the most effective methods of collecting and understanding data about the processes and outcomes of enterprise bargaining are still being developed. Several broad measures of the relative predominance of some main pay setting mechanisms are currently available (e.g. award, collective agreement, individual agreement).

Working arrangements — ABS statistics on working arrangements are primarily about work patterns rather than volume of work. Work patterns in many jobs are set to suit the demands of the production processes or services associated with that work. Jobs such as nursing, aircraft maintenance and cinema projection, will inevitably require people to work in patterns that differ from the standard nine to five required for office based jobs. Work patterns may also be flexible in relation to the needs of employees (e.g. working mothers), or employers, who may want to hire casual employees for short periods to supplement core staff. Working arrangements information includes information about start and finish times, rostered days off, overtime, shift work, days of the week worked, absences from work and casual and contract work.

Industrial disputes — In ABS statistics, an industrial dispute is broadly defined as a withdrawal from work by a group of employees, or a refusal by an employer or a number of employers to permit some or all of their employees to work: each withdrawal or refusal being made in order to enforce a demand, to resist a demand, or to express a grievance.

Trade unions — A trade union is defined by ABS as an organisation, consisting predominantly of employees, the principal activities of which are the negotiation of rates of pay and conditions of employment for its members. In terms of the transactions framework, individuals (as employees) seek to improve their wellbeing by joining unions which then negotiate with employers and industrial tribunals on their behalf. While the role of trade unions has been changing over the last few

Arbitration measures continued

decades, historically they have played a fundamental role in industrial relations in Australia. Improved conditions of employment have been negotiated within a complex structure of legally constituted tribunals (Commonwealth and State) which have dealt with industrial matters such as wage fixation, rates of pay, hours of work, and equal pay principles. Unions are diverse in character, and range from small independent associations to large national organisations.

Measurement issues

Because labour statistics are in demand as both key economic and social indicators, there are a number of different data collections conducted by the ABS and other organisations supporting estimates of employment, unemployment and other labour market phenomena. Each of these collections has its own objectives, and uses a particular methodology. Some data sets are collected from households, while others are collected from businesses. Thus a variety of different counting units are used (e.g. households, persons, businesses, jobs, dollars, events — such as industrial disputes). Some data are derived from administrative processes (e.g. unemployment benefit registration), or from job vacancy advertisements. Some estimates will relate to a point in time and others to changes over time, and surveys also use reference periods. Therefore, while labour statistics from different sources can be complementary, they will clearly be difficult to fully reconcile, even where standard definitions and classifications are applied.

Even within ABS household survey collections there is variation in the way in which labour force data is collected. The Labour Force Survey (LFS) is designed specifically to measure labour force characteristics of the Australian population and it uses a large set of questions to provide information that is both detailed and accurate. Other household surveys, such as Special Social Surveys (SSS), are primarily interested in collecting detailed information about specific social issues (e.g. health, housing) and collect information on labour force characteristics for explanatory purposes only. So, while these surveys collect labour force information which is conceptually the same as that collected in the LFS, the data is collected using a reduced set of questions which do not allow the same level of detail and precision as the LFS. Similarly, the Census is constrained to using brief, self-enumerated survey questions to elicit labour force status data. In this case, reduced labour force detail and precision is balanced by the availability of small area estimates.

Within business based collections, estimates will also vary depending on the nature and purpose of each collection, and on the methodology used. Some surveys are designed to collect the total flow of earnings to employees over a quarter, while others are designed to provide estimates of average earnings for a particular pay period. The different purposes of these surveys make it necessary to have different reference periods, and to define concepts such as earnings, slightly differently.¹ However, even surveys with similar purposes can produce different estimates due to different sample designs and survey methodologies.

Differences also exist between household and business based measures. This is partly because similar concepts are measured from different perspectives and different counting units are used. For example, when measuring employment,

Measurement issues *continued*

household collections count the number of people employed, where a business based collection may count the number of jobs on business payrolls. The number of jobs may be larger than the number of employed people because some people have more than one job. Methodology also contributes to measurement differences. For example, coverage of businesses may be incomplete, either through exclusion of certain sectors, such as agriculture, or from deficiencies in sample frames.

Finally, ABS labour statistics may differ from those produced outside the ABS, particularly those derived from administrative processes (partly because administrative processes do not generally have statistical definitions and evaluation as their primary purpose). For example, Department of Family and Community Services (DFACS) data on unemployment allowances provides information about unemployment that is complementary to the LFS, but not comparable with it. Differences between LFS and DFACS unemployment information occur in situations where, for example, a person:

- is working part-time while continuing to receive the DFACS allowance (e.g. because their income falls within an income test limit);
- has not applied for an unemployment allowance, but is out of work and seeking work; and
- does not receive an allowance because their income and/or their partner's income exceeds the income test limit, but is out of work and seeking work.

NON-ECONOMIC WORK

In economic accounting, the notion of work as a wider concept than economic based labour is a fairly recent development. Prior to the 1993 UN revision of the System of National Accounts (SNA), work equated strictly with the notion of economic activity. A person was counted as economically active only if they contributed or were available to contribute to the production of goods and services falling within the SNA production boundary. Although the 1993 revision did not extend the boundary of economic activity, it did allow unpaid household work to be encompassed by the SNA framework within a specialised system known as satellite accounts.

In Western society, the impetus for seeing work in a wider context came partly from the social movement in the seventies and eighties towards greater recognition of the economic value of unpaid work, particularly household work such as child rearing, cooking, cleaning, etc. These activities were mainly undertaken by women, although they could be hired in the labour market and, in this context, could potentially be included within the SNA. Since that time, these types of tasks have been increasingly recognised as contributing to society both socially and economically. Work undertaken outside the market is not characterised by obvious contracts involving remuneration for a specified input of labour, knowledge or skills. Contracts are nevertheless involved, albeit at a less obvious and more intimate level of transaction. People may, for example, find themselves committed to household work and the care of children as part of a larger commitment to a personal relationship.

Time use framework

The ABS uses measures based on its Time Use Framework to inform issues relating to non-economic work. The framework also identifies time spent on economic work, and on leisure activities, enabling comparisons to be made between these three areas. (Further discussion of the Time Use Framework used by the ABS is included in Chapter 10 — Culture and Leisure.) The Time Use Framework incorporates a time use activity classification which classifies a comprehensive range of activities according to whether they are necessary, contracted, committed or free time activities. Data collected about the amount of time spent on each activity can be aggregated for each category of time.

In summary, necessary time is time taken up by activities such as sleeping, eating and personal care which serve basic physiological needs. Contracted time is time spent on paid work and regular education. Committed time is time spent on activities to which a person is committed through social obligation such as household or voluntary work. Free time is the time left when the previous three types of time have been taken out of a person's day — mainly leisure time. Non-economic work comprises the entire category of committed time. The unpaid work activities identified in satellite national accounts are all committed time activities. The table below shows the four time categories and the major activity groupings that fall into each category.

TIME USE FRAMEWORK

Type of time	Major Group - activities	Major Group - activities		
<i>Necessary</i>	1. Personal care	R e c i p i e n t s	P a r t i c i p a n t s	L o c a t i o n
<i>Contracted</i>	2. Employment			
	3. Education			
<i>Committed</i>	4. Domestic			
	5. Child care			
	6. Purchasing			
	7. Voluntary work and care			
<i>Free</i>	8. Social/ community interaction			
	9. Recreation and leisure			

The Time Use Activity Classification is a hierarchical classification, structured into three levels of detail, which describes what people do with the twenty four hours of the day. The classification identifies the 9 major groups shown above, 70 minor groups and 186 more detailed categories.² Supporting information, regarding whom the activity is done for, whom the activity is done with, and the location of the activity, further describes the way in which people use their time.

Time use framework *continued*

It is worth noting that non-economic work is sometimes referred to as unpaid household work. In ABS estimates, the terms non-economic work and unpaid household work refer to the same thing, e.g. the time spent on unpaid activities undertaken in committed time by individuals (the household sector), irrespective of whether or not the work is within or outside the individual's household.

Valuing non-economic work

Two basic methods for valuing the time spent on non-economic work have conventionally been used. These are the replacement cost approach (the cost of replacing this work with paid work), and the opportunity cost approach (the cost to the person undertaking the work of missed income earning and other opportunities). Within the replacement cost approach there are further alternatives. Activities can be valued at the individual function replacement cost, for example, the cost of getting clothes ironed, or the housekeeper replacement cost, where the cost of a generalised housekeeper covers the costs of individual activities such as ironing.³

DATA SOURCES

There are a large number of data sources that provide information about the various aspects of work described in this chapter. These include a range of household based and employer based collections undertaken by the ABS, surveys conducted by other agencies, together with data obtained as a by-product of the information systems of various agencies concerned with administering various service delivery programs. A detailed account of these data sources, organised by topics of interest, is given in the recently released ABS publication, *Labour Statistics: Concepts, Sources and Methods* (Cat. no. 6102.0).

A feature of ABS household based data collections which provide the primary means for assessing the relationships between work and individual wellbeing is the use of standard modules of questions that describes people's participation in the labour force, whether they are employed or unemployed, and if employed their industry, occupation, and hours of work. Thus, conceptually consistent data are collected in almost all ABS social surveys (including health, disability, time use, income and household expenditure) and the five yearly national Census of Population and Housing. However, the household surveys specifically designed to support a great deal of more focussed analysis of people's work activities and conditions, and of the performance of the economy, namely the monthly Labour Force Survey (LFS) and its associated supplementary surveys, use more detailed sets of questions to define many of the key work related data items listed above and provide the official source of statistics on labour market trends.

Labour Force Survey (ABS)

The ABS has conducted the LFS since 1960. The survey was undertaken on a quarterly basis before February 1978 and has been conducted monthly since then. The purpose of the LFS is to provide timely information on the labour market activity of the civilian population of Australia aged 15 years and over. It produces estimates of the currently economically active population (labour force) according to the concepts and definitions previously outlined (see pages 158–165) and is the official

Labour Force Survey (ABS) *continued*

source for the labour force participation rate (the percentage of the population who are in the labour force), the unemployment rate (those unemployed as a percentage of those in the labour force) and related statistics on peoples labour market activities. Data items collected enable analysis of labour force activities among population sub-groups including men and women, people in various age groups and according to their family type and relationship within a family. The survey also collects information each quarter on time-related underemployment, job tenure (length of time in current job) and employment expectations, thus providing complementary measures of labour market dynamics in the form of recent and potential future movements in the labour force.

Labour Force Supplementary Surveys (ABS)

Further information on a variety of topics, including marginal attachment, discouraged job seekers and underemployed workers is collected in surveys conducted as supplements to the LFS and many of these supplementary surveys are conducted on a recurrent basis, either annually, biennially or at less regular intervals.

The information available from these surveys includes the labour force data and demographic information collected in the labour force surveys to which they are linked. The titles of supplementary surveys conducted through the late 1990s and more recent years, listed below, help to illustrate the range of topics covered.

Career Experience	Annual
Employee Earnings, Benefits, Trade Union Membership	Annual
Job Search Experience of Unemployed Persons	Annual
Persons Not In the Labour Force	Annual
Transition from Education to Work	Annual
Underemployed Workers	Annual
Labour Force Experience	Biennial
Labour Mobility	Biennial
Successful and Unsuccessful Job Search Experience	Biennial
Forms of Employment	Irregular
Migrants, Labour Force Status and Other Characteristics	Irregular
Multiple Jobholding	Irregular
Retirement and Retirement Intentions	Irregular
Retrenchment and Redundancy	Irregular
Working Arrangements	Irregular
Locations of Work	Irregular
Work related injuries	Irregular

Survey of Employment and Unemployment Patterns (ABS)

The Survey of Employment and Unemployment Patterns, conducted between 1994 and 1997, was a longitudinal survey designed to provide information on the dynamics of the labour market and to assist in the assessment of the impact of labour

Survey of Employment and Unemployment Patterns (ABS) *continued*

market assistance initiatives. The survey collected information on four separate occasions from a sample of people who were identified as being jobseekers or recent labour market program participants, and a population reference group (or control group). After providing initial data about their current employment status, employment history, level of education and a range of other personal characteristics, each subsequent interview obtained details of their employment related activities over the intervening period. With respondents' consent information collected directly from them was linked with income support data from the then Department of Social Security and with labour market program participation data from the then Department of Employment, Education, Training and Youth Affairs. The survey has been widely used by social and economic analysts to assess employment outcomes for various population sub-groups and the merits of labour market assistance schemes in alleviating the extent of joblessness.

Survey of Employment Arrangements and Superannuation (ABS)

The Survey of Employment Arrangements and Superannuation (SEAS) was a new household survey conducted for the first time in 2000. It is planned to be repeated every six years. Information about people's working arrangements available from the survey includes occupation, industry, employment type, job duration, and work patterns and preferences. SEAS focused on distinguishing newer and emerging working arrangements from the prevalent, but declining, full-time ongoing working arrangements with regular hours and paid leave entitlements. Superannuation information includes types of contributions and amount, amount accrued in superannuation, and benefit structure and fund type of each account. For retired people, information includes whether they had received a lump sum recently, the amount of the lump sum received and whether any of the lump sum was rolled over. Information obtained from the survey is particularly relevant to employment or labour market policy and retirement income policy.

Census of Population and Housing (ABS)

The Census of Population and Housing conducted every five years provides data about the labour force status of individuals aged 15 years and over and, for those employed, details of their full-time part-time status, occupation and industry of employment. The questionnaire module used in the Census to produce aggregates of labour force status is consistent with international standards, but uses fewer questions than the LFS. Because of this and because of differences in collection methods and scope, the results are not strictly comparable with those produced from the LFS. However, because it has information for all members of the population, the Census is able to provide statistics about people's particular circumstances at fine levels of classificatory detail that are not generally available from social surveys. These include statistics of people in fine level classifications of occupation and industry which can be used in association with other demographic, social and geographical area variables to the full extent to which each of their associated classifications allow.

Time Use Survey (ABS)

The Time Use Survey, last conducted in 1997 and next planned for 2005, provides detailed information on the daily activity patterns of people in Australia in terms of the times (i.e. the time of day/week and duration of time) spent on those activities. Among other uses, the survey supports the analysis of patterns of engagement in paid and unpaid work among men, women and other sub-groups of the population.

Economic Activity Survey (ABS)

The annual Economic Activity Survey established at the beginning of the 1990s directly collects information about the operation and financial performance of all businesses in the public trading and private employing sectors of the Australian economy. It provides key measures on the employment, income and expenditure of Australian industries and includes data on wages and salary costs. Data from the Australian Taxation Office (ATO) and the Australian Prudential Regulation Authority are also incorporated.

More frequent information on economic activity of private businesses is also collected in the Quarterly Economic Activity Survey (QEAS). This survey, which incorporates the collection of information previously obtained in a number of other surveys, produces estimates of employment, profits, selected income items including sales, selected expenses including labour costs, and inventories, by private businesses in Australia. From 2002 the QEAS will provide private sector earnings data that was formerly made available from the quarterly Survey of Employment and Earnings (SEE). The means of providing public sector employment and earnings data that has been provided by SEE, is currently under review.

Major Labour Costs Survey (ABS)

The Major Labour Costs Survey aims to collect data on the costs incurred by employers as a consequence of employing labour. It is a mail based survey of employers, which was conducted annually from the mid eighties to the beginning of the nineties and is now carried out every five years — the last survey being in respect of 1996–97. Estimates of labour costs, including employee earnings, employer payments for superannuation, workers' compensation, payroll tax and fringe benefits tax, are produced. These data are available for public and private sector employers and can also be classified by industry, employer size and State. Major economic policy departments at both the Commonwealth and State levels consider labour costs data to be essential to their needs, especially in view of the Government's prices and incomes policy and the need to monitor labour costs for the wage fixation process.

Employment Earnings and Hours (ABS)

The Survey of Employment Earnings and Hours has been conducted since 1974 and is currently run biennially. This business based survey produces estimates of the composition and distribution of employees earnings and hours, as well as estimates of the proportion of employees whose pay is set on awards only, by collective agreements and by individual agreements. Estimates are used in developing and reviewing wages and labour market policies, in the wage negotiating process, and in research on various aspects of the labour market.

Average Weekly Earnings (ABS)

The quarterly survey of Average Weekly Earnings (AWE), based on samples of businesses since 1981, measures the average weekly earnings of employed wage and salary earners (excluding those employed in private agriculture) in Australia. Estimates of average weekly ordinary time and total earnings are available for both full-time adult employees and all employees and are classified by sector, state or territory, industry and sex. The AWE series is a major economic indicator and is consequently used by a large number of users in both Commonwealth and State government departments, employer associations, and trade unions. Uses of the data include: the adjustment of payments specified in Government legislation, both State and Federal or in escalation clauses in business contracts; in economic and labour market analysis by both government and private organisations; and in representations in the award and wage case submission process.

Wage Cost Index (ABS)

The Wage Cost Index (WCI) is one of the key quarterly economic indicators produced by the ABS. The index measures changes over time in wage and salary costs in the Australian labour market, unaffected by changes in the quality and quantity of work performed (e.g. the WCI is a measure of change in the 'price' of labour). Estimates are used in formulating industrial relations and wages policies, economic analysis and contract adjustment. The ABS has published estimates for the WCI on a quarterly basis since December 1997. Four sets of quarterly Laspeyres indexes are compiled (total hourly rates of pay — excluding bonuses; ordinary time hourly rates of pay — excluding bonuses; total hourly rates of pay — including bonuses; and ordinary time hourly rates of pay — including bonuses). Within each index set, separate indexes can be made available for various combinations of State/Territory, sector (private/public), broad industry and broad occupation groups.

Industrial disputes (ABS)

The ABS has been collecting information about industrial disputes since 1913. The data, available on a monthly basis, are mainly compiled from information obtained from employers (both private and public sector), from trade unions and from reports of government authorities. Because particulars of some stoppages (e.g. State or Territory or Australia-wide general strikes) are estimated, the data gives a broad measure of the extent of industrial unrest. The information collected by the ABS includes the number of disputes, their cause and method of settlement, the number of employees involved (separately for direct and indirect involvement) and working days lost (total and per thousand employees) and is classified by State, industry, duration of dispute, cause of dispute and method of settlement.

Job Vacancy Survey (ABS)

The ABS Job Vacancy Survey, a business survey, was first conducted in 1974 and since 1979 has been conducted as a quarterly survey. The survey produces estimates (by State and Territory, sector, and industry) of the number of job vacancies and job vacancy rates in Australia which are used as a leading indicators of employment growth, in monitoring of the Australian economy, and for formulating economic policy.

Job vacancies (ANZ and DEWSRB)

The most commonly used non-ABS source of job vacancy data is the monthly ANZ (Australian and New Zealand Banking Group Limited) job advertisement series, which extends back to 1981. The series counts job advertisements in newspapers in capital cities, and Internet advertisements carried on selected employment Internet sites. Recent and ongoing changes in hiring practices, e.g. increasing use of employment agencies, and the switch from newspaper to Internet advertising, have resulted in job vacancy data based on newspaper advertisements becoming less comprehensive.

In December 2000, the Department of Employment, Workplace Relations and Small Business (DEWSRB) commenced publication of the Vacancy Report. This monthly publication consist of three series: the Skilled Vacancies Index; the Information and Communications Technology Vacancies Index; and a count of vacancies on DEWSRB's employment website, Australian Jobsearch. As with the ANZ series some components are also based on job advertisements found in particular media; however, the series provides more classificatory information, in terms of type and location of jobs, than is available from the ANZ series.

Through its online Job Outlook services, DEWSRB also provide a range of information about skill shortages in many occupations. This information has a number of components and is based on information compiled from a number of sources. These include data on projected jobs growth (about 5–6 years out) based on projections provided by the Centre of Policy Studies at Monash University.

Small Area Labour Market Conditions (DEWSRB)

Published on a quarterly basis by DEWSRB are a number of series which primarily draw on ABS LFS and Centrelink administrative data to provide regional estimates (both by Statistical Local Areas and DEWSRB labour market regions) of labour market conditions in those areas. Measures provided included participation rates, employment, employment growth over the previous quarter and unemployment.

Federal Enterprise Bargaining (DEWSRB)

Information relating to federal enterprise bargaining agreements made in Australia is available from an administrative database, the Workplace Agreements Database (WAD) maintained by DEWSRB. The WAD records details on employee coverage, wages (size and timing of increases) and conditions of employment of all known federal collective agreements which have been certified or approved by the Australian Industrial Relations Commission. Information from the database is made available through the release of a quarterly publication 'Trends in Federal Enterprise Bargaining'.

Data from Centrelink

Statistical information about people who receive income support payments is published regularly by the Department of Family and Community Services. This is based on the administrative records of people receiving income support payments from Centrelink (the agency that actually approves and provides the payments to those eligible for support). Included among these recipients are people who have received various labour market related payments (typically because they are

Data from Centrelink *continued*

unemployed or have little income from their employment) and regular statistics are available about the number and characteristics of people receiving such payments. These are available by geographical area which provide additional measures of social circumstances in various parts of Australia. The number of people receiving work related payments may sometimes be used as proximate measures of unemployment although they do not concur with the official estimates provided by the ABS.

Data from the Australian Taxation Office (ATO)

Information on individual and business tax returns lodged with the ATO also provides opportunities for producing statistics about employment activity at national and sub-national levels. Data relating to individuals from this source is currently being used to present an annual series of statistics on numbers of people in Statistical Local Areas who receive wages and salaries. These data are available by age, sex and occupation (broad groups) and include data on levels of wage and salary income received. First obtained in respect of the 1995–96 financial year these data are being published by the ABS in various products concerned with providing geographical area related data.

National data set for compensation-based statistics (NOHSC)

Data on occupational injuries and diseases are principally compiled from administrative records of Commonwealth, State and Territory compensation authorities by the National Occupational Health and Safety Commission (NOHSC). Such compensation based data, has been supplied to NOHSC each year from 1991–92 onwards to accord with National Data Set standards which were most recently reviewed in 1999. Data items include: employer description — both in terms of industry and size; employee characteristics — age and sex; job characteristics — occupation, hours usually worked; injury/disease occurrence details — nature of injury/disease, bodily location of injury/disease; and, outcome of incident — time lost, payments made and a severity indicator.

ENDNOTES

1. Earnings are defined relatively narrowly in some surveys, and more broadly in others. A detailed discussion of these concepts including full definitions for different ABS surveys is provided in *Labour Statistics: Concepts, Sources and Methods*, (Cat. no. 6102.0) and on the ABS Website: <URL: <http://www.abs.gov.au>>.
2. *How Australians Use their Time*, ABS (Cat. no. 4153.0).
3. See ABS Information Paper *Measuring Unpaid Household Work* (Cat. no. 5236.0) for a full discussion of these several approaches, their technical limitations and the resulting valuations.

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CHAPTER **7** **ECONOMIC RESOURCES.....**

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How do economic resources relate to individual wellbeing?

The standard of living of individuals and families is greatly determined by their command over economic resources. Having a high income or having substantial reserves of wealth extends the range, quantity and quality of goods and services that can be consumed. People with limited resources can experience hardship in meeting the basic costs of living and may become dependent on others to have such needs met. The value of income and assets held by individuals is widely seen to be an indicator of life success.

How do they relate to the wellbeing of society?

General societal wellbeing is affected by the extent to which there are people living with limited resources (in so called poverty) and by whether differences between the rich and the poor are socially palatable in terms of community attitudes about justice and equity. Feelings of social justice and equity are affected by the perceived fairness of many transactions associated with the acquisition and redistribution of economic resources, such as payments for work, government taxes, income support payments for the needy, the giving and taking that occurs within families, and of everyday business transactions.

What are some key social issues?

- Ensuring that all people have an adequate income to meet the basic costs of living.
- Ensuring that people are fairly remunerated for their work.
- Determining the amount of financial and non-financial support that should be provided to people with limited means.
- Reducing the risk of poverty by supporting sustainable human and economic development.
- Organising a fair re-distribution of economic resources through government taxes and expenditures.
- Ensuring people are able to accumulate sufficient resources through their working life to support themselves and their families in retirement.

What are the key definitional challenges?

Deciding which resources should be counted as economic resources in measures of economic wellbeing, such as income, consumption and wealth, can be difficult because there are many kinds of resources (tangible and intangible) which might be considered and because some resources can be difficult to value. Developing concepts and measurement scales that suitably distinguish between the rich and the poor in a way that fully accounts for their command over all goods and services remains a challenge.

What are the main measurement issues?

Most people have difficulties providing a fully itemised and completely accurate account of their income, their assets and liabilities, and their purchases, and many regard these matters as private. Imputing the value of some types of income and assets from other data sources is a means of providing more comprehensive views of economic wellbeing. Finding practical ways for obtaining reliable data which usefully describe people's economic circumstances is therefore an on-going issue of concern.

DEFINING ECONOMIC RESOURCES

People depend on a wide range of resources to maintain and enhance their wellbeing. Some resources such as air, water and food are essential to life. Clothing and shelter are basic needs. However, there is also a vast array of other goods and services that people seek to own and consume or to have accessible to satisfy their needs and wants. These include land and property, a diverse range of manufactured goods and various health, education, financial, personal, cultural and recreational services. Of course, in order to prosper, individuals need to use their own physical and mental resources, their health and education, to acquire other tangible and intangible resources. If their capacities are limited, they need the physical and mental resources of others within their family or in the wider community to help meet their needs. The goods and services that individuals or families are able to consume largely depend on their income and wealth.

All resources have a value to people and many have a quantifiable economic (or money) value. Those that are bought and sold in the marketplace have an obvious economic value. Those traded for services or other goods, rather than money, can also be considered to have an economic value. A person's health or their family and social relationships may be considered as being valuable resources but are not in themselves usually assessed in terms of a monetary value. Economic resources may thus be defined to cover those resources that have a monetary (or market) value and it is these that are referred to when considering a person's or family's income, consumption and wealth. These resources include goods and services, tangible and intangible assets, and financial assets and liabilities.

Economic wellbeing

The concept of economic wellbeing relates to people's command over economic resources. This focus on economic wellbeing is embodied in questions such as: whether people have a high or low income; whether or not they are wealthy; whether or not they are experiencing financial hardship; whether or not they are dependent on welfare from government and charitable organisations; whether they have a high or low level of consumption, or, very similar in meaning, whether they have a high or low level of expenditure. Yet other questions relating to economic resources include: whether or not people have access to basic services; whether or not they can afford to buy or pay for particular goods and services, and, whether or not they have the means to get over a financial crisis.

Living standards and poverty

The standard of living of people and their families is concerned with their consumption of goods and services. It depends on the wealth of economic, social, and cultural resources in the community in which they live and their ability to acquire them. The concept of living standards is a relative one: a person's living standards — whether they are rich or poor — is assessed relative to those of other people or relative to some statement of minimal needs. People with a low standard of living may be considered to be in poverty if the range and quality of resources available to them and their ability to participate in society falls below community

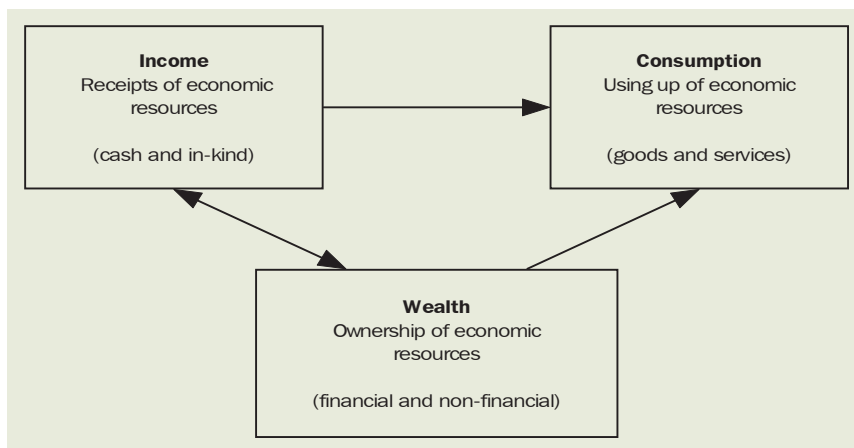
Living standards and poverty *continued*

standards. There is no general agreement on what the 'community standards' are — indeed many standards exist (see page 205 — Measuring poverty). Thus poverty, as with living standards, is a relative and quite subjective concept.

Income, consumption and wealth

Among the various concepts used when considering the economic wellbeing of people, the most common are those developed by economists and accountants, dealing with income, consumption and wealth; these particular concepts are also used in relation to other entities such as corporations and whole national economies. Although these notions have different meanings to different people, and even experts have different views as to how they might be defined for different purposes, they are generally concerned with describing the total economic value of the resources received, owned, or finally used up by people. As illustrated, at a broad level in the diagram below, the concepts are inter-related.

Thus, using familiar ideas (more rigorous definitions of each concept and others closely related to them are given later in this chapter in the 'Frameworks' section), it is evident that the cash income people receive can be used to purchase goods and services or save and invested so helping to expand a person's wealth. The financial and non-financial resources that have been accumulated can also be used to meet a household's needs or wants for goods and services. Since both income and wealth can be used to support consumption it is apparent that economic wellbeing depends on the presence of both types of resources. Together the notions of income and wealth are sometimes collectively referred to as the 'means' of living.



The nature of the inter-relationships can differ. For example, people may have a low income for a period of time but enjoy a high level of consumption during that period because they can draw on their stock of wealth. Alternatively, they may have low levels of consumption despite having a high income if they are saving or paying off debts. Yet again some people can have a great deal of wealth but low income and low levels of consumption if their wealth cannot be readily used. This last situation, encapsulated by the expression 'asset rich but income poor' tends to be more common among those groups of people whose assets are tied up in their own business (e.g. farmers).

Income, consumption and wealth *continued*

It can therefore be misleading to assess people's relative economic wellbeing by using any of the three concepts — income, consumption or wealth — in isolation. It is for this reason that other measures, such as people's experience of financial hardship or their own subjective assessments of their economic wellbeing, can provide useful additional perspectives on people's economic wellbeing.

ECONOMIC RESOURCES AND WELLBEING

'Annual income twenty pounds, annual expenditure nineteen and six, result happiness. Annual income twenty pounds, annual expenditure twenty pounds and six, result misery.'

Mr Micawber's advice from *David Copperfield*, by Charles Dickens.

Individual wellbeing

An individual's wellbeing (and that of the social unit with whom they share resources) is obviously low if their budget is so limited that they have difficulty in paying for basic necessities of life, such as food, clothing and shelter. People in this situation can face physical, mental and emotional stress on a daily basis, as they struggle to make ends meet and to live a civilised life. Being dependent on others, for money or for goods and services, can also affect a person's self esteem. People with limited resources may have feelings of inadequacy or failure, particularly as, in our culture, high income and high levels of consumption are often equated with success.

Beyond being able to provide for themselves and provide for their families with basic necessities, most people aspire to having extra money to obtain a range of other goods and services that may serve to enhance their wellbeing. People with ready access to large amounts of money obviously have greater choice in satisfying their wants and needs than those with little money. Although being rich does not necessarily make people happy, those who are rich have more freedom to choose the lifestyle and the material goods they would prefer.

Wellbeing of society

The acquisition and use of economic resources is a social activity which involves giving and taking. In our system of production and distribution many transfers occur as formal transactions in the marketplace. While allowing people to pursue their own interests the marketplace may not meet the needs of all. Individual business interests may be against the interests of the wider community. Mechanisms therefore exist to cater for people who fare less well and to protect wider community interests. It is the tension between the self interest of people and the concerns with supporting others, played out within families, through business decisions, and the many decisions of governments through their taxing and spending programs, that helps to determine levels of inequality within the community.

As described in the chapter concerned with family and community, a key determinant of human wellbeing is the way in which people support each other with their various needs. Many forms of support involve the transfer of economic resources. These transfers occur within families, between friends and neighbours, as

Wellbeing of society continued

well as through government tax-transfer systems. They also occur through the work of charitable organisations, sometimes with the help of government, and the charitable donations made by businesses and households.

Measures of income distribution and of the extent to which people live in relative poverty provide key indicators of the effectiveness of the market and of the complementary roles of families, governments and community groups in sharing the rewards of economic growth. As such they provide a basis for society to evaluate established systems of resource distribution and the need for change.

SOCIAL ISSUES*Income inequality*

Inequalities in income and wealth are inevitable: some people earn more than others, consumption and investment behaviours differ, and life circumstances vary. Such inequalities may provide incentives and rewards for people to contribute more actively to social and economic life. However, large and conspicuous differences in the economic resources and levels of consumption of the rich and the poor can affect social cohesion. The histories of various population groups throughout the world give testimony to the fact that gross inequalities in levels of income and wealth are associated with social conflict and political instability.

As a result the extent of economic inequality within society, and especially whether it is increasing or decreasing over time, is of considerable interest to governments, welfare organisations and the community as a whole. The effect of the tax-transfer system administered by governments is of particular importance in this regard as it is the primary mechanism by which economic resources, obtained by individuals from their market activities, are redistributed. Also the factors which lead to a greater preponderance of low incomes, such as rising levels of unemployment or the ageing of the population (with more people becoming dependent on social security payments), need to be understood because of their different policy consequences.

Poverty

Absolute deprivation, in terms of access to goods and services, is rare in Australia as social transfers help to ensure that all people have food, clothing and shelter. Nevertheless many people are still poor relative to others in society. The extent of such relative poverty is a concern because it raises issues of social justice as well as the need to address the many problems that poor people can have. Often associated with poverty are problems such as a lack of participation in work, drug taking, poor health, poor education, crime and lack of opportunity for children. Knowledge about the reasons for poverty, the extent to which individuals stay in poverty for prolonged periods of time, and how it affects people's lives, can influence social policies directed at improving living standards.

Promoting economic growth

Maintaining reasonable levels of economic growth is a key concern of governments because it is through growth that many people are able to increase their living standards. To this end governments and other bodies seek to obtain information about the performance of the whole economy and its many parts to help evaluate the need for new policies to promote growth. A great deal of the information that is sought relates to the operation of business enterprises and institutions that make up the private and public sectors of the economy. However, economic policy development is also informed by the economic activities of individuals and households. For example, through their changing patterns of consumption and saving, households help determine levels of demand for goods and services. Information that monitors levels of income growth by sources of income (especially earnings), patterns of consumption, levels of consumer debt, levels of savings and investment and other economic activities of people (referred to as the household sector of the economy) provides input into the continuous task of shaping and reshaping fiscal and monetary policies relating to management of the economy.

Set against this focus on economic growth are concerns about the negative impact that some forms of economic growth can have on the natural environment and the fact that growth may not be sustainable because many resources are limited. Another concern is whether there is undue attention to economic growth, resulting in too little attention to other dimensions of wellbeing. Some argue that the emphasis on progress should be in other areas of wellbeing rather than material gain with which economic growth is often associated. There is also a concern that growth can lead to increases in levels of income inequality and greater inequality in the distribution of wealth.

Effectiveness of government income redistribution

As noted above, governments play a major role in re-distributing economic resources within the community. This is largely organised through the collection of taxes and through expenditures on specific services such as education, health and housing and on direct income support payments to people with limited means. Tax-transfer systems are typically progressive. In other words they are designed to reduce the level of inequality in the distribution of resources by taking more from the better off and giving to those less well off. The extent and form of any redistribution can have important implications for the wellbeing of particular groups within the population and so raise issues of social justice and equity.

In addition to general issues of fairness there are many policy related issues associated with the redistribution of income that are of interest especially as they can impact on social behaviours. For example there have been concerns that jobless people looking for work may not have a strong incentive to take up a job if unemployment benefit payments are relatively high compared to the after tax income of a low paying job. In such cases, the difference between the benefits and the net earnings may not be adequate to cover the cost of working. Understanding changes in social behaviours that might be linked to particular tax/benefit settings underpins reviews of the effectiveness of such policies.

Levels of remuneration

Most people rely on wages and salaries as their main source of income, so their economic wellbeing largely depends on the level of remuneration. It naturally follows that matters associated with earnings are issues of particular concern to large numbers of people. Such issues include the relative value of different jobs, whether award rates of pay are fair, whether pay rates are keeping up with the changing cost of living, and whether the forms in which pay is provided (in cash or in kind) are suitable. Negotiations concerning these matters often occur at the enterprise level between the parties directly concerned, namely employers and employees. However, while playing less of a role than was the case when negotiations over pay and conditions were more highly centralised, representative groups such as trade unions, industry associations, governments and their tribunals, also work to meet the interests of their constituents in determining appropriate levels of remuneration and need information to support these negotiations.

Retirement income

Helping to ensure that people accumulate sufficient wealth through their working life to support themselves in retirement has become a matter of growing public policy concern. This is because of the huge impact that a rapidly ageing population can have on the demand for government funded age pensions and health benefit payments and because there is concern that future generations of taxpayers will not be able to meet these additional costs. Information that describes the saving patterns of individuals, especially in the form of superannuation, and the contribution that employers are making to such mandatory saving schemes, is vital to understanding future costs and to determining the need for further programs to encourage people to save for their retirement.

Social values concerning the acquisition of economic resources

Changing social attitudes to maximising personal economic wellbeing may be an important factor in shaping a wide range of social outcomes relating to each of the other areas of social concern, for example, declining fertility, weaker family relationships, poorer health, further education etc. This is because there can be opportunity costs associated with making money. For instance having an interest in getting a high paying job may mean a person spends a longer time in education and that they delay or decide not to have a family, or, once working, that they spend long hours at work and give less time to other matters such as socialising, looking after their health or to family matters. Observing social trends in these trade-offs and understanding causal relationships can help shape policies to overcome perceived social problems.

Access to particular resources

Access to resources is an important determinant of economic wellbeing and need not only be viewed in terms of the amount of income people receive. At a more basic level, economic wellbeing can also be considered in terms of whether people have paid employment or not, or whether they have access to opportunities that may enhance their economic wellbeing. In terms of gaining an income, these include the opportunities people may have for obtaining an education or finding employment.

Access to particular resources continued

People may be restricted from gaining access to particular resources for all sorts of reasons. These include the availability of those resources in the area in which they live, as well as their personal circumstances such as whether they have a disability or not or, from the point of view of providers, whether people are eligible to use those resources or not.

There are many examples of inequality in access to particular goods and services. One concern is the divide between people who have access to emergent information and telecommunication technologies and those who do not. Some of these technologies have helped to reduce pre-existing inequalities. However, in an economy increasingly dependent on such facilities the gap between the haves and have nots may also create new divisions affecting the relative economic wellbeing of people. Issues of access and equity to other services such as health, education and housing are discussed in the other chapters of this book. However, each may be viewed as a matter associated with the distribution of economic resources.

POPULATION GROUPS

Social policy gives particular attention to identifying and meeting the needs of population groups most likely to have difficulties in meeting the costs of day to day living or in accessing particular resources (such as housing or health services). Some of the groups for which information is required include:

Indigenous people

Aboriginal and Torres Strait Islander people are widely recognised as being among the most impoverished groups within Australia. Their housing conditions are often comparatively poor, they have lower levels of educational attainment, and health conditions are also often poor. Those who live in remote areas often have limited access to social services expected as being basic to people living in urban areas. Many rely on government transfers as their major source of income. Some of the many factors underpinning this relative poverty include their limited ownership of economic resources.

People with low incomes

People with low incomes (i.e. persons considered to be in relative poverty) are those likely to be in greatest need of financial support. Assessing their economic wellbeing in terms of the resources they have available to them (their actual levels of income, their wealth and level of consumption) helps to determine the adequacy of any financial or non-financial support that may be provided. It is also through the analysis of the various characteristics of people identified as being poor, such as, where they live, their life cycle stage, their family type, their ethnicity, their daily activities and their health status, that common reasons for low income can be identified and that suitable policies might be developed to target assistance to groups of special concern.

Social security recipients

To support government activities in administering the provision of pensions and benefits to people with limited means, information is needed about the potential numbers of recipients for each type of payment (age pensions, disability pensions,

Social security recipients *continued*

sole parent pensions, unemployment benefits and so forth) and whether over time those numbers are expected to rise or fall. Information is also needed to assess whether payments are adequate to meet needs. Knowing about the circumstances of income support recipients (their personal characteristics and activities) compared to other people in the community is also useful as it can suggest ways of helping them out of a dependent situation.

Life cycle groups

Levels of income, wealth and consumption are highly associated with people's life cycle stages. It is by understanding life cycle patterns, including the associations between age, participation in work, work experience and earnings and their associations with stages of family formation and dissolution, that social norms can be seen. Organising information about the economic resources of people relative to others in the same life cycle group and those in different life cycle groups once again helps to determine appropriate levels of assistance to people who may be in need of support.

Families with children

The economic wellbeing of families with children is a matter of particular public concern because children are largely dependent on the economic resources of their parents for their prosperity. In Australia, parents who are relatively poor are given additional income support to help meet the costs of bringing up their children. Knowing about the resource needs of parents and children helps ensure that provisions made are suitable.

Depending on circumstances, family breakdown, through separation and divorce, can create particular economic hardship for both the former partners and their children, especially for the parents who live with their children, commonly mothers, who are not able to work because of their parenting role. Ensuring agreeable outcomes in terms of the way former partners, the government and welfare agencies, share the costs of bringing up children in such circumstances has been an issue of on-going social policy concern.

Young people

The period of transition from being dependent on one's parents to full independence can be precarious for young people. Understanding the different pathways youth follow as they mature can help determine those who might be in greatest need of support. Details of interest in this regard include: their living arrangements (whether living with parents or not); their economic activities (whether studying, working, or looking for work); and details of economic resources provided by parents. This information can also help in designing schemes to support youth in gaining their independence from parental or government support and in evaluating the effectiveness of those schemes.

Self-funded retirees

Recent decades have seen the development of social policies seeking to encourage people to provide for themselves in their retirement. Important among these has been support for the provision of retirement income through investment in

Self-funded retirees continued

superannuation schemes by employees in which employers have also been obligated to make payments. Obtaining information that helps assess the outcome of those policies, such as changes in the numbers of people able to live independent of government income support, is of particular interest.

FRAMEWORKS

The economic resources available to individuals and their households take many forms and are continuously being added to, and subtracted from, the wealth that people own. An essential framework for the measurement of economic wellbeing is one that identifies and orders the diverse flows of economic resources so that they can be counted, valued and aggregated on a consistent basis to provide widely used comparative measures of economic prosperity. Some resources can be difficult to value in monetary terms and pragmatic decisions need to be made as to whether they should be included or not. The ABS makes reference to a number of conceptual frameworks to assist in the task of providing useful statistics in this area of concern. These include both macro and micro level frameworks, as well as frameworks that link the two.

System of National Accounts (SNA)

The overarching framework used is the System of National Accounts (SNA) of which the most recent standards, agreed to by member states of participating international bodies, including the United Nations, the International Monetary Fund and the World Bank, were published in 1993. SNA93 provides a comprehensive system for measuring the state of the national economy, at the macro level. It records the essential elements of an economy: production, income, consumption (intermediate and final), accumulation of assets and liabilities, and wealth. These elements comprise economic flows and stocks that are grouped and recorded, according to specified accounting rules, in a set of accounts for the economy as a whole and for various sectors and subsectors. The sectors and subsectors comprise groups of institutional units with the same economic role. As an integral part of the system, the accounts provide an overview of the economic activity of the household sector and show how the household sector interrelates with the other sectors of the economy, including corporate business enterprises (financial and non-financial), government, and private non-profit institutions serving households. There are separate household accounts detailing consumption expenditure by commodity, income by source of income and use of income, and accounts detailing capital transactions and financial transactions. There is also a balance sheet recording the assets and liabilities of the household sector.

Australian System of National Accounts (ASNA)

The SNA forms the basis for Australia's own system of national accounts, the Australian System of National Accounts (ASNA). At this stage of its development, the ASNA does not include all of the elements of the SNA93 framework, although Australia's implementation of SNA93 is extensive relative to the implementation of most other countries. Also, although the concepts and definitions used in the ASNA generally conform with the standards set out in SNA93, some minor variations have

Australian System of National Accounts (ASNA) *continued*

been adopted to allow for particular Australian data supply conditions or user requirements. Many of the statistics in the ASNA are compiled in volume (real) as well as current price (nominal) terms by application of SNA93 recommendations for price and volume measures. By grouping private non-profit institutions that serve households with households, partly because the data needed to produce separate accounts for the private non-profit institutions sector is not readily available, the household sector within the ASNA is defined more broadly than that in the SNA.

Income, Consumption and Wealth (ICW)

A broad conceptual framework for measuring economic wellbeing at the individual household (or micro) level was published by the ABS in 1995 (see, *A Provisional Framework for Household Income, Consumption, Saving and Wealth* (Cat. no. 6549.0)). For ease of reference the framework is commonly known as the Income, Consumption and Wealth, or ICW, framework. This framework describes an ideal set of information about economic resources that might be used to describe the distribution of economic wellbeing among households. Many of the concepts presented in the ICW framework were established by reference to those used in the SNA and economists and statisticians have generally sought to maximise their comparability as refinements to each have evolved. Certainly in their broad conception the frameworks have in common the notions of income, consumption and saving as flow concepts and wealth, or net worth, as a stock concept. There are nonetheless differences, often minor, in the treatment of various components associated with each concept. These differences, and those associated with the ASNA, have not been fully documented and are too numerous to record in this chapter. It should nonetheless be understood that the differences reflect the different traditions in collecting and presenting information at the macro and micro level, and that the tendency at the micro level has been to give greater attention to concepts and the availability of data that distinguish between the economic wellbeing of individual households.

Since the publication of the provisional ICW framework there have been further developments which have produced some enhancements to that framework, especially in those sections concerned with the measurement of income. These enhancements have arisen from a cooperative effort between the ABS and other members of the international statistical community to develop a common conceptual basis for measuring household income which could be used by statistical agencies across the world. The measurement of income was the key area of attention because income based measures are those most frequently used, both within and across countries, to describe the economic wellbeing of population groups. An international group, known as the International Expert Group on Household Income Statistics (or Canberra Group) was established to undertake this work and its recommendations were published in 2001. The recommendations give extensive regard to SNA93 concepts but some conceptual differences remain, as some SNA93 concepts do not give ideal views of differences in people's living standards when applied at the household level.

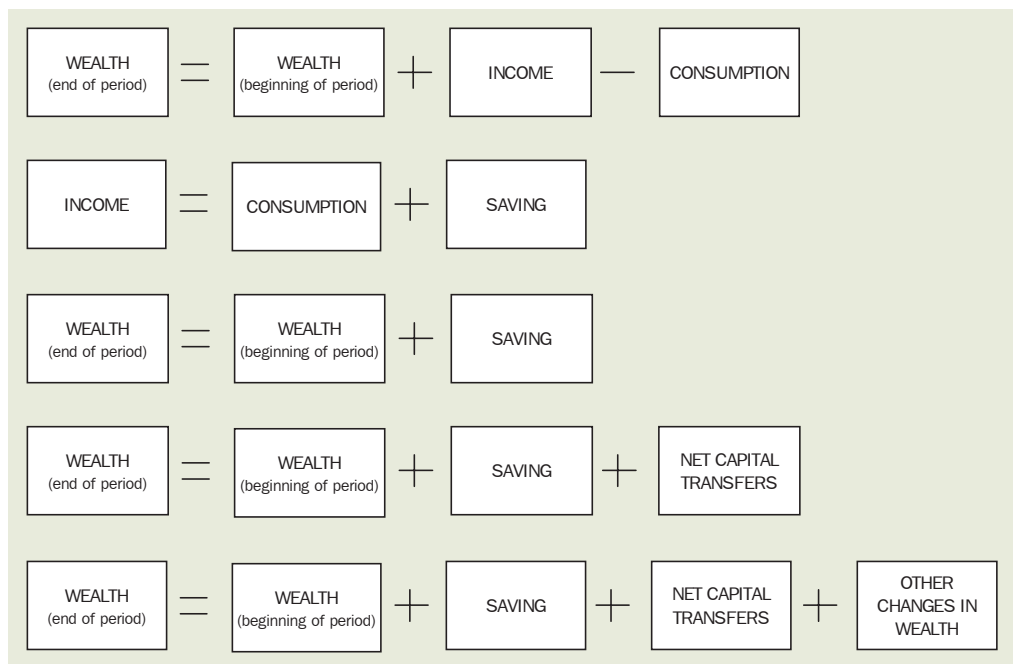
Macro–Micro linkages

Worldwide, increasing attention has been given to the possibility of linking statistical information available at the macro and micro level and analytical frameworks have emerged to support such work. For example, the Social Accounting Matrix (SAM) approach, presented in SNA93, seeks to disaggregate the household sector in order to examine interrelationships between the structural features of the economy and the distribution of economic resources among different socioeconomic groups. These interests have brought renewed pressures to harmonise the concepts used in the different frameworks and to clearly recognise existing differences and why they are needed.

Given the focus of this book on concepts used to measure the distribution of wellbeing among people, the following sections focus on those concepts used to measure wellbeing at the household level, as described in the ICW framework. Although accounts of differences in micro and macro concepts are provided by the ICW framework publication and the Canberra group report, readers are advised that there is no single source that fully reconciles the concepts used in both systems: this is partly because they both keep evolving.

Stocks, flows and accounts

Ideas about stocks and flows of economic resources, which are common to the SNA, ASNA and ICW frameworks, are important because they provide foundations for measurement. Thus, the receipts of resources that comprise income can be added to wealth while those consumed must be subtracted. In other words, income can either be consumed or saved. Saving can have either a positive or negative value. Saving will be positive if income exceeds consumption or negative if consumption exceeds income, and wealth will grow or decline accordingly. Of course, if there is no saving (or dissaving) income would be the same in value as consumption. These relationships can be expressed by the first three equations shown below, while some refinements (discussed later) are shown in the final two equations.



Stocks, flows and accounts *continued*

The refinements in the final two equations are necessary for two main reasons. First, it is not sensible to include lumpy or irregular receipts of economic resources as a part of income. Such receipts, (e.g. inheritances), are often added directly to a household's stock of wealth for future use, rather than being used up in the same period. They are best viewed as capital transfers. Second, a household's wealth can rise or fall without the household making any economic transactions. These 'other changes in wealth', as referred to in the last equation, can occur because of changes in the market value of the resources owned by the household. Thus, for example, a house may appreciate in value over time. The real (allowing for inflation) net effect of such changes for all the economic resources owned by a household are referred to as real net capital gains or real net holding gains. Households may also lose their assets, or the value of some of their assets, through mishaps, such as fire and floods.

Of course changes in wealth may be assessed without regard to the flows described above. This can be done by measuring the value of economic resources owned by the household at two points in time and then taking the difference between the two.

The equations described above form the basis for the more detailed information models, presented in the SNA/ASNA and ICW frameworks, which classify particular types of receipts and disbursements and particular types of assets and liabilities within a fully integrated set of accounts. The sequence of accounts are of the sort commonly used by accountants to monitor business activities and outcomes. In the case of micro level household statistics such accounts are not actually constructed: their role is to clarify the theoretical foundations for each of the concepts — income, consumption, wealth, and so on — used to measure economic wellbeing.

One of the most commonly referred to accounts is known as the 'current account'. This corresponds with the second equation described above. In theory, it is used to identify all the regular receipts of income against current consumption (that is, the use of goods and services) and thus provides the means for calculating the net outcome, namely saving. The other accounts are used to monitor changes in wealth that occur for reasons other than, and in addition to, those made from saving. They record the changes affecting the value of different assets and liabilities that households have at different points in time and so provide a means for measuring and analysing their net worth.

INCOME

While the term income is in common use, it means different things to different people and is defined in different ways according to use. Among economists, statisticians and accountants there has been a long history of debate on the boundaries that should be set for the income concept and although the conceptual models adopted by the ABS (namely the SNA, ASNA and ICW frameworks) give recognition to the same principles in defining income, the actual boundaries differ in their detail. The following describes the principles that underlie the concept

INCOME *continued*

'... it would seem that we ought to define a man's income as the maximum value he can consume during a week, and still expect to be as well off at the end of the week as he was at the beginning.' (Hicks, 1946).¹

Similar notions are used in the System of National Accounts 1993 (SNA93) where disposable income is described as being:

'... the maximum amount that a household or other unit can afford to spend on consumption goods or services during the accounting period without having to finance its expenditure by reducing its cash, by disposing of other financial or non-financial assets or by increasing its liabilities.' (SNA93 para 8.15).²

In both cases household income is defined in terms of its availability for current consumption which is regarded as giving the best indicator of a household's economic wellbeing. The connection with consumption offers a rationale for limiting household receipts of resources to those that are most likely to impact on their current consumption. Thus, household income is defined as comprising receipts (in cash or in kind) that accrue on a regular and recurring basis. In practice, it usually refers to receipts that occur at annual or more frequent intervals and such receipts are presented as average weekly equivalents. In contrast, large irregular receipts that occur within an accounting period are considered to be additions to a household's stock of assets. However, by convention, the treatment of particular types of irregular receipts can differ from this general rule and so be included as income. Thus, for example, work related redundancy or termination payments are included as a component of income in both the SNA and ICW frameworks.

Furthermore, the concept considered to best reflect the amount available for regular household use is that of disposable income. Not all income is available for consumption because some is obligated to others. Disposable income is often simply measured as gross cash income minus direct taxes. However, as recommended by the Canberra Group, other regular and recurring transfers, such as those provided to other households (as is the case with some child support payments) may also be deducted to provide more refined measures of disposable income.

It should be noted that there are other notions of income that are sometimes also used to measure economic wellbeing. Thus the notion of 'final income', which takes into account indirect government taxes that are ultimately paid by households and indirect benefits received through government expenditures on various community services, is one that has also been used by the ABS in studies of the economic wellbeing of different household types.³

Sources of income

People can obtain an income from various sources. Important among these is cash income received from employment, either as an employee or from self employment, cash income received from assets loaned to others in return for payment, and regular cash transfers received from government or other sources. They may also receive non-cash benefits, that is, income-in-kind, from various sources. A good classification of sources of income is important to studies of income distribution as it helps to

Sources of income *continued*

describe the dependencies individual households have on those sources for their wellbeing. The classification of sources of income provided by the Canberra Group that is presented on the following page, which is very similar to (but not the same as) that presented in SNA93, describes the most recent thinking on the specific sources of income that might be separately identified in micro level statistics. While there are some differences between these categories and those used in previous ABS household income distribution surveys, it should be recognised that the information available from those surveys largely accords with the broad level classification of income presented by the Canberra Group.

The Canberra Group classification also serves to identify those sources of income for which information about the amounts received (their dollar value) is most readily available from households themselves and those whose dollar value can only be realistically measured by reference to additional sources of information, as is generally the case with non-cash components of income.

In micro level survey data relating to households, household income (both gross and disposable) is most commonly measured by the ABS, as by most other statistical agencies, as the cash amounts received; income-in-kind is excluded. Nevertheless, the effects of some of the more significant non-cash components received by households on the distribution of economic wellbeing have been examined in special studies undertaken by the ABS and other researchers. These include studies of the value of income from owner occupied dwellings;⁴ the value of unpaid household work;⁵ and of the value of 'social transfers in kind' (STIK) received from government expenditures on services targeted to meeting specific human needs.⁶ The last of these (sometimes known as fiscal incidence studies) have been a particular focus of ABS attention. As well as measuring the benefits received from government expenditures on various services such as health, education and housing, these studies have simultaneously shown the effect of other elements of the tax-transfer system on the economic wellbeing of households. Consideration of the value of such benefits, on top of other sources of income received, has provided much wider views of economic wellbeing than those provided by looking at the more readily available measures such as total (gross) and disposable cash income.

CONSUMPTION

In the ICW framework, household consumption refers to the process of 'using up' goods and services and in economic terms refers to the monetary value of the goods and services consumed for the direct satisfaction of household needs or wants within a given reference period. The reference period most commonly used is a year. This period helps to take account of different seasonal patterns in the nature of goods and services consumed, but, as with income, the value of consumption is often averaged out to weekly equivalents. When thinking of a household's consumption of economic resources accountants and economists often value consumption on the basis of people's expenditures on goods and services, and when thinking of owner occupied dwellings or durable goods the value of the service that comes from using those goods. The notion of consumption, as just defined, is similar to that used in the SNA93 (and ASNA) frameworks.

Classification of Sources of Income(a)

1 Employee income

Cash or near cash

- 1.1 Cash wages and salaries
- 1.2 Tips and bonuses
- 1.3 Profit sharing including stock options
- 1.4 Severance and termination pay
- 1.5 Allowances payable for working in remote locations etc. where part of conditions of employment

Cash value of 'fringe benefits'

- 1.6 Employers' social insurance contributions
- 1.7 Goods and services provided to employee as part of employment package

2 Income from self-employment

Cash or near cash

- 2.1 Profit/loss from unincorporated enterprise
- 2.2 Royalties

In-kind, imputed

- 2.3 Goods and services produced for barter, less cost of inputs
- 2.4 Goods produced for home consumption, less cost of inputs
- 2.5 Income less expenses from owner-occupied dwellings

3 Rentals

- 3.1 Income less expenses from rentals, except rent of land

4 Property income

- 4.1 Interest received less interest paid
- 4.2 Dividends
- 4.3 Rent from land

5 Current transfers received

- 5.1 Social insurance benefits from employers' schemes
- 5.2 Social insurance benefits in cash from government schemes
- 5.3 Universal social assistance benefits in cash from government
- 5.4 Means-tested social assistance benefits in cash from government
- 5.5 Regular inter-household cash transfers received
- 5.6 Regular support received from non-profit making institutions such as charities

6 Total income (1 plus 2 plus 3 plus 4 plus 5)

7 Current transfers paid

- 7.1 Employers' social insurance contributions
- 7.2 Employees' social insurance contributions
- 7.3 Taxes on income
- 7.4 Regular taxes on wealth
- 7.5 Regular inter-household cash transfers
- 7.6 Regular cash transfers to charities

8 Disposable income (6 minus 7)

9 Social transfers in kind (STIK) received

10 Adjusted disposable income (8 plus 9)

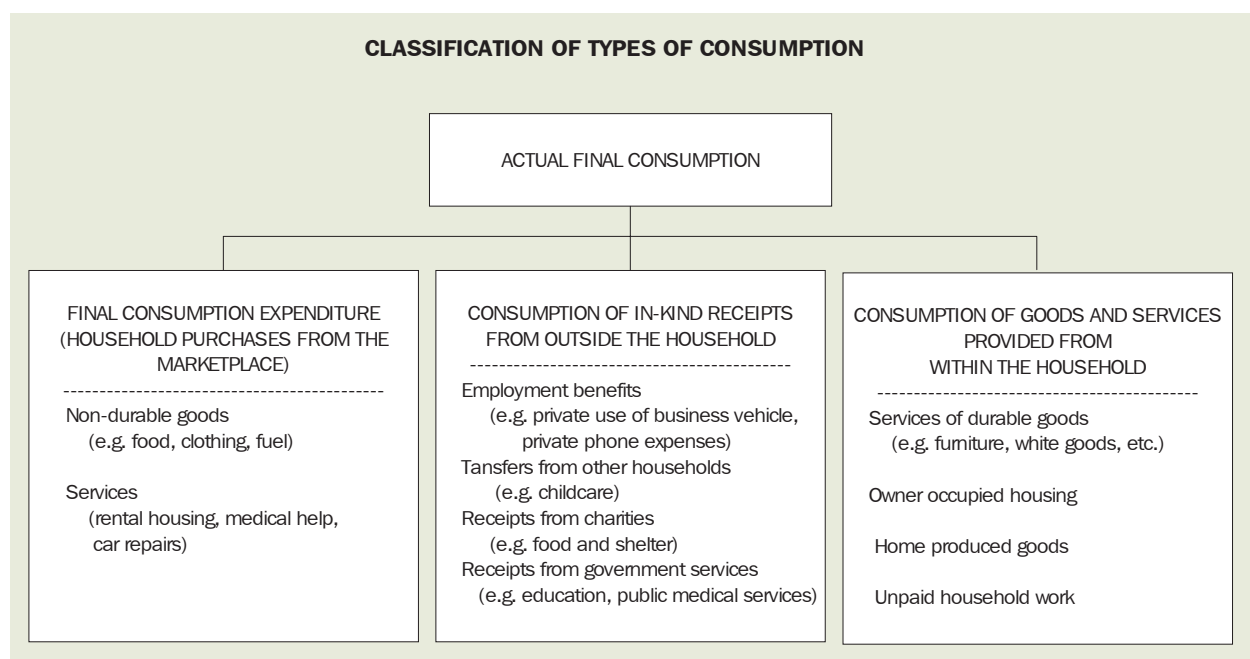
(a) As defined by the International Expert Group on Household Income Statistics.

Durable and non-durable goods

The specification of a reference period is important when measuring consumption because it imposes conditions on how the consumption of particular goods used by a household should ideally be valued. Hence the distinction between non-durable and durable goods. Since non-durables, such as food, tend to be consumed soon after their acquisition their economic value may be thought of in terms of their current market or purchase price. However, as durable goods are often consumed over a long period of time (consider for example, a car or a refrigerator) the economic value of the use of those goods, or rather the use of the services provided by those goods, within the given reference period, cannot be determined from the current market value of the full cost of purchasing that durable good. To economists the real value of the services provided by durable goods must be considered by reference to the market (or rental) value of the services of those goods over the period that they are used. While this rental value approach is adopted when estimating the consumption value of owner-occupied housing, it is relevant to note that estimates of the real consumption value of services obtained from household durables are rarely, if ever, produced. Within the SNA /ASNA frameworks, with the exception of owner occupied housing and valuables, such as precious stones and antiques, household durables are treated as being completely consumed within the reference period, and are valued in terms of their full purchase price.

Actual final consumption

The ICW framework further organises ideas about consumption according to the total disbursements that a household makes from their disposable income with respect to their actual final consumption. Some household disbursements involve the giving of gifts (cash or in kind) to other households and charities. Such transfers are excluded from actual final consumption which, as in SNA93, refers to goods and services used by households themselves to satisfy their wants and needs. Actual final consumption is then conceptualised, as seen in the following diagram, according to the source of goods and services and, if from outside the household, how they were



Actual final consumption continued

obtained. There are three broad categories; final consumption expenditure (which refers to that part that is purchased in the market place with money and includes the value of indirect taxes paid); consumption of in-kind receipts from outside the household; and consumption of goods and services provided from within the household.

Complete micro-level statistics on levels of actual final consumption, as inferred by the previous diagram, are rarely provided by statistical agencies. In Australia, where households typically purchase most of the things they need and want, much of the attention is given to measuring the final consumption expenditure component in order to provide indicators of household wellbeing. However, other elements of consumption, such as the value of owner occupied housing, unpaid household work, and receipts of government services are, as previously noted, sometimes measured in special studies. Such studies tend to measure and analyse these elements as components of income rather than consumption, although they belong with both.

Classification of expenditures

There are obviously many different goods and services that people can purchase and consume that may be included in final consumption expenditure. Classifying detailed expenditure items into broad groups facilitates the analysis of expenditure patterns. In ABS Household Expenditure Surveys (HESs) household expenditures are classified into 13 broad expenditure groups. For the 1998–99 HES, this involved grouping information for some 609 detailed expenditure items. Data for groups of expenditure items at an intermediate or minor group level are also available.

**Broad Expenditure Groups:
Goods and Services**

01. Current housing costs
02. Domestic fuel and power
03. Food and non-alcoholic beverages
04. Alcoholic beverages
05. Tobacco products
06. Clothing and footwear
07. Household furnishings and equipment
08. Household services and operation
09. Medical care and health expenses
10. Transport
11. Recreation
12. Personal care
13. Miscellaneous goods and services

SAVING

Saving is that part of a household's disposable income that is not spent on final consumption of goods and services. It may be positive or negative depending on whether disposable income exceeds final consumption expenditure, or vice versa. If saving is positive, then the unspent income will have been used to increase a household's assets (which may include financial assets, including holdings of cash balances, and non-financial assets) or reduce their liabilities (such as reducing the size of a mortgage). If saving is negative, some financial or non-financial assets must have been liquidated, cash balances run down, or some liabilities increased. Whichever direction, saving affects the net worth of the household. The concept of saving, as just described, is the same in the ICW, the SNA and the ASNA. However differences exist to the extent that definitions of income and consumption differ.

WEALTH/NET WORTH

A household's wealth at any given point in time is defined as the difference between its stock of assets and its stock of liabilities. Because it is a net value, which may be either positive or negative, wealth is more appropriately referred to as 'net worth'.

Unlike the flows of income, consumption and saving, net worth is a stock figure. It changes over time by being added to through saving and capital transfers. It may also be depleted by incurring liabilities, by liquidating assets to finance consumption, or by transferring assets to another entity such as a charity or the household of a family relation. Net worth may also change without there being any transactions. For example, a household's share holdings may increase or decrease in value as a result of changes in stock market prices; such changes can occur for other assets as well, such as property.

In the ICW framework assets are defined as resources owned or being purchased by the household from which benefits may be derived by their owners by holding or using them over a period of time. Assets are divided into two categories, financial and non-financial. Financial assets include items such as cash, shares and equity in life insurance or pension funds. The most common non-financial asset in Australia is the family home. Non-financial assets also include valuables (jewellery and the like), consumer durables such as the family car, and plant or machinery owned by unincorporated enterprises owned by the household. Liabilities, on the other hand, are defined as obligations on the part of the household to make a payment, or series of payments, to the owners of financial assets. For many Australian households, the largest liability they have is the mortgage on the family home. They may also have other loans, bank overdrafts or credit card debt. Loans outstanding to family members in other households are also included as liabilities.

The value of a household's net worth plays an important part in its economic wellbeing. It may earn a return to the household in the form of income from interest, rent or dividends. However, it also affects the broader economic power of the household. For example, households with a high level of wealth will find it easier to gain credit for investment or to maximise the choice of timing for different types of

WEALTH/NET WORTH *continued*

consumption. For these reasons it is important to ascertain, if possible, the value of the household's net worth to give a complete picture of a household's economic wellbeing.

The following classification of assets and liabilities, adapted from the classification presented in the Australian System of National Accounts, has been used in special ABS studies;⁷ which, bringing together data from the national accounts and households surveys through the social accounting matrix approach, have sought to reveal the distribution of wealth among households.

Classification of Assets and Liabilities*Assets**– Financial*

- Cash and deposits
- Shares and other equity
- Superannuation and life insurance

– Non-financial

- Own home
- Rental and other dwellings
- Other construction
- Farmland and native forests
- Machinery and equipment
- Inventory and other assets

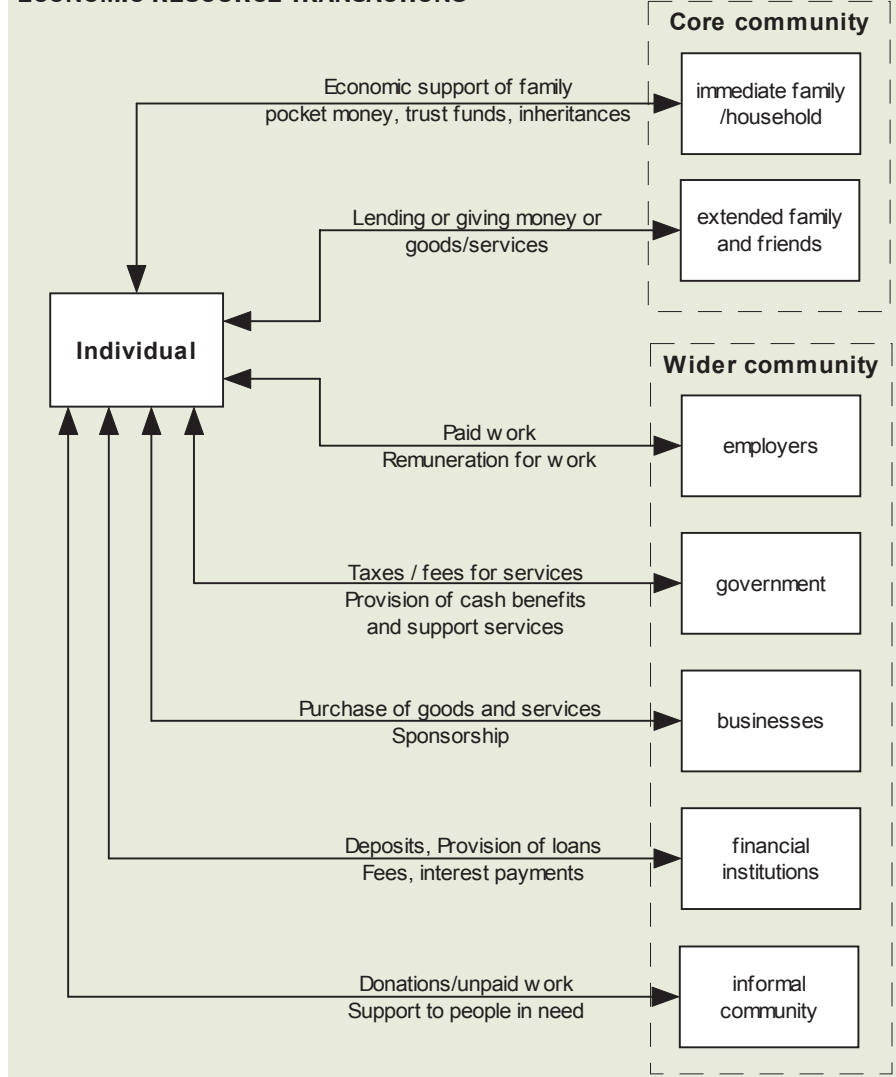
Liabilities

- Loans for own home
- Loans for rental dwellings
- Consumer and other housing loans
- Business loans

TRANSACTION MODEL

A useful complementary framework for addressing needs for statistical information is to consider the nature of the many interactions and interdependencies that people have with others in the process of generating, distributing and using economic resources. Some examples of interactions involving exchanges of economic resources are illustrated in the diagram opposite. Many of these transactions have been explicitly recognised as either sources of income, or forms of consumption in the frameworks described above; however, the transactions model over the page provides an alternative perspective of these flows.

A number of the components illustrated in the model can be associated with those used in SNA93 which, at its broadest level, identifies corporations (non-financial and financial), governments, households and non-profit institutions as making up key institutional sectors within the national economy. However, as presented in the diagram, the model also reveals that transactions within a household's core community, (namely, among immediate family members, other relatives, and friends) may be important in shaping an individual's economic wellbeing.

ECONOMIC RESOURCE TRANSACTIONS**MEASUREMENT ISSUES**

Controversy over practical measures of income, consumption and wealth that might be provided by statistical agencies are often concerned with the types of economic resources that should be included which in turn is often related to the practicability of acquiring the necessary information. For example, where information about receipts of economic resources is limited, income is often solely defined as the cash receipts that people receive. The non-cash components are commonly excluded.

The term 'regular and recurring' used to define income has to be interpreted reasonably broadly. For example, contract employees are increasingly being paid on a lump-sum basis for work done over an extended period. Casual employment, with accompanying changes in the regularity of income, has also become more common. Similarly, self-employed people, especially in industries such as agriculture, can have quite irregular income streams.

MEASUREMENT ISSUES *continued*

Household surveys provide the primary means for obtaining information to support distributional studies of wellbeing. Obtaining high quality data in household surveys is an issue for all types of information collected. However, the collection of data that accurately describes the economic wellbeing of households can be particularly difficult to obtain. This is partly because complete and accurate records of income, assets, liabilities and expenditure are rarely maintained by households themselves and the collection of such information can involve a great deal of work for respondents. On the expenditure side, for example, households included in Household Expenditure Surveys, are asked to maintain a record of all their expenditures over a two-week period in written diaries as well as report on various large expenditure items relating to an extended 'recall period' during interview. In addition, many people regard their financial matters as being private and may as a result not be fully cooperative in providing full details of their income and expenditure.

Where data about the value of economic resources available to households are not collected from households themselves there are possibilities for imputing such information. Imputation by reference to information from other sources is widely used for valuing non-cash income. However, this too can be difficult specially where other needed data sources are not readily available. Finding practical ways for obtaining reliable data which usefully describes people's economic circumstances is therefore an on-going issue of concern.

Income from self employment

On the income side a particular area of difficulty relates to obtaining accurate information about income from self employment. This may be facilitated by reference to business accounts but for many small businesses these have in the past not always been available, or if available, have been seen to be potentially unreliable. This reflects, in part, the difficulty of distinguishing between business and personal components of income and expenditure. One of the concerns about the quality of information relating to income from self employment is that it is often very low, or negative, in value. Of course this is possible. A negative cash income results if operating costs and depreciation are greater than the gross receipts. However, analysis of household expenditure data for households with low or negative business incomes has often revealed that many of these households have expenditures that are much higher than that expected from their income.

In some cases, low or negative income from self employment will not be associated with low standards of living because the low income is part of an expected cycle of high and low results in a volatile industry such as agriculture. In the short term, low business income may reflect a significant depreciation allowance that offsets a higher level of cash receipts that do not immediately have to be spent on capital replacement. Whatever the reason for low and negative values, as a measure of the standard of living, business income is fairly unsatisfactory and needs to be used with caution. Additional data on consumption of households with business income may assist analysis.

Saving

Notwithstanding the conceptual relationships, a measure of a household's saving cannot simply be deduced from the difference between measures of their income and expenditure, as obtained from household expenditure surveys. Such subtraction often implies a level of dissaving for the lower income groups which is not considered to reflect the actual situation. There are various reasons for this. One relates to the fact that available measures of income and expenditure do not fully account for all income and all consumption as set out in the conceptual models, so the information available is incomplete. Another relates to the fact that there are often significant timing differences between the income and expenditure components actually collected in such surveys. Indications of saving outcomes for households have sometimes been obtained by asking households to give subjective assessments of their ability to save.

Counting units

The economic wellbeing of individuals is typically assessed at the family or household level. This shift in focus occurs because in living together with others people typically share some, or all, of their economic resources with those with whom they live so individuals benefit from the pooling of resources. This is most obvious in the case of young children who depend on the income of their parents for their wellbeing.

Other counting units, such as units to whom social security benefits are paid, closely approximated in composition by the counting unit known as 'income units', present themselves as alternative units of measurement. Income units, families and households are all relatively small, they all involve people who live together, but differ in membership in terms of personal relationships (whether family members or not) and further according to the likelihood that certain resources will be shared among individual members (whether members are considered to be inter-dependent on income or not).

Counting units involving individuals that are most likely to have strong inter-dependencies might be considered to be preferable in studying the distribution of economic wellbeing because sharing of income and goods and services is more likely to take place in such circumstances. Yet there is little doubt that unrelated people who form households also derive benefits from living together, some simply arise from economies of scale. As the exact nature of sharing that takes place within households (or counting units within households) can only be assumed, the choice of which one to use can be difficult. Which one is best depends on the issue of concern, the types of transactions being considered, and the services being delivered and consumed. For instance, income units have been important units of analysis to government agencies concerned with organising payments of pensions and benefits because the government recognises that responsible adults within such units have obligations to share resources with others within the unit. In practice each of the units — households, families, income units and persons — are widely used when analysing receipts of income (see page 16 for definitions).

Counting units *continued*

When all aspects of economic wellbeing are being considered the household is the preferred unit because of the practical need to aggregate to this level when dealing with data on consumption and assets. A good deal of consumption relates to items which are used by the household as a whole (buying white goods, paying rates and electricity/water bills). Moreover a substantial proportion of income-in-kind is also generated by the household economy. Such income-in-kind includes unpaid household work, imputed rent of owner-occupied dwellings and the value of services provided by household consumer durables.

Equivalence scales

The use of counting units in which individual units may differ in size and composition, such as households, families or income units, presents difficulties for identifying those people that are relatively well off from those not so well off. This is because the size and composition of any unit affects its need for economic resources. For example, it would be expected that a household consisting of just one person would normally need less income to enjoy the same standard of living as a household with two or more people. One way of adjusting for this difference might be to simply divide the income of the unit by the number of people within the unit so that all income is presented on a per capita basis. However, such an adjustment assumes all individuals have the same resource needs to enjoy the same standard of living and that there are no economies derived from living together.

Various calibrations, known as equivalence scales, have been devised to make adjustments to the actual incomes of counting units in a way that recognises differences in needs of individuals within those units and the economies that flow from sharing resources. The scales differ in their detail and complexity but commonly recognise that the extra level of resources required by larger groups of people is not directly proportional to the number of people. They also typically recognise that children have fewer needs than adults.

Equivalence scales are generally based on subjective judgements on the different needs of household members. For this reason, and in the absence of an international standard, the ABS does not have an official set of equivalence scales for use. Rather, the ABS publishes equivalent income using a number of alternative scales to provide some sensitivity analysis on the effects of these scales on the measurement of economic wellbeing. More detail on equivalence scales and technical notes on their use can be found in the ABS income survey publications.⁸

Measuring poverty

The term poverty has various meanings. However, when considered in economic terms poverty is most commonly measured on the basis of people's cash income. In some countries the notion of absolute poverty is important and has been defined in terms of a minimum base level of income needed to obtain sufficient calories, clean water, and adequate clothing and shelter. However, this is not appropriate in affluent countries such as Australia. One alternative approach has been to define poverty in terms of a base level of income regarded as being essential for people to participate in activities that the society regards as normal. Clearly it can be very hard to prescribe what the base level is, and to determine how it shifts over time. In Australia a poverty

Measuring poverty *continued*

line (describing a base level income needed to live a decent life) was developed by Professor Henderson for the 1975 Commission of Inquiry into Poverty;⁹ and, after adjusting for the general rises in income, is still used in some contemporary studies of poverty in Australia. In research supported by the Department of Family and Community Services more recent systematic attempts to define a basic range of goods and services needed to maintain an adequate standard of living has helped to update thinking on suitable levels of income required to keep people out of poverty.¹⁰

An alternative approach, more commonly adopted, is to choose a certain level of income at the lower end of the income distribution to delineate relative poverty. Relative poverty is a measure of disadvantage derived by comparing a household's income to others in the community. By international convention, the low income cut-offs commonly used to identify those in relative poverty are set as a proportion, usually one half, of either average income or median income, after incomes have been adjusted using equivalence scales.

It is important to note that measures of people in poverty on the basis of income can be misleading because people can have low incomes yet still have high levels of consumption, as is sometimes the case for people with self employment income. As previously discussed, this discordance can occur for a variety of reasons reflecting people's actual circumstances. However, it suggests that alternative approaches to measuring poverty such as those based on levels of consumption would also be useful.

Price indices

Prices of goods and services can change over time due to inflationary pressures. When providing time series comparisons of income or expenditure it can be desirable to compare real changes in levels of income or expenditure which remove the effects of inflation. Ideally any price index applied should be consistent in definition with the measure to which it is applied. For example, a price index applied to disposable income would ideally capture those consumption items that might be purchased from disposable income while one relating to expenditure on food would be applied to measures of household expenditure on food. Usually, because of its ready availability, the consumer price index or one of its sub-indices is applied. However, other indexes such as the chain price index for Household Final Consumption Expenditure provided by the national accounts are also used.

DATA SOURCES

Many of the social surveys conducted by the ABS provide measures of income (usually before tax cash income) and principal sources of income, as indicators of a person's or household's economic wellbeing. This information is collected to help assess the relationships between economic wellbeing and outcomes in other aspects of people's lives on which those surveys are focussed. Thus, ABS surveys of family functioning, health, time use, housing, and those concerned with groups of social concern such as Aboriginal and Torres Strait Islander people, crime victims, older people and people with disabilities, have all provided information about people's

DATA SOURCES *continued*

incomes. However, the ABS has also regularly conducted more highly focussed surveys, generally known as income distribution surveys and household expenditure surveys, that serve to provide detailed data on the type and value of economic resources acquired and consumed by people. These surveys, described further below, provide the foundation for more detailed studies of the distribution of economic wellbeing among different socioeconomic groups.

Survey of Income and Housing Costs (ABS)

This survey, conducted as a continuous monthly survey since 1994 and superceding periodic income distribution surveys conducted between 1968 and 1990, collects information on sources of income, amounts received and selected housing costs along with information about the characteristics of individuals and their households. Income is collected on both a current (recent payment period) and financial year basis. The principal objective of the survey is to facilitate the analysis and monitoring of the social and economic welfare of Australian residents in private dwellings. The main users are government and other social and economic analysts variously involved in the development, implementation and evaluation of social and economic policies. The major uses for the income data are poverty studies, planning income support, taxation policy and comparing the wellbeing of groups of people with particular characteristics. The frequency of the survey is currently under review, with a view to reducing its frequency to either biennial or triennial.

Household Expenditure Survey (ABS)

Conducted periodically, usually at intervals of 5–6 years, since the mid 1970s these national surveys provide detailed information about the expenditure of households on goods and services. Average weekly expenditure on over 600 goods and services can be obtained. At the same time the surveys provide information about household income, household size and composition and various other household characteristics useful for the analysis of expenditure patterns. Estimates are available for Australia, the States and Territories, and for broad geographical areas (State, capital city, other urban and rural). The general objectives for conducting these surveys have been to: identify the net levels and patterns of expenditure of households on a comprehensive range of goods and services purchased for private use; determine how these levels and patterns vary according to income levels and other characteristics of households, such as size and composition, location and principal sources of cash income; and, help update the weighting pattern of the Consumer Price Index (CPI) to ensure it adequately reflects the spending habits of the Australian population. The CPI (referred to below) is an indicator of the rate of change in prices paid by consumers for the goods and services they buy.

As designed the surveys provide data enabling detailed analysis of the economic wellbeing of the population and levels of economic inequality, the effectiveness of the social support system and the mechanisms by which the system of government taxes and benefits redistributes income between different types of households.

Fiscal Incidence Study Publications (ABS)

Produced after the conduct of each Household Expenditure Survey (HES) since 1988/89, are arrays of published data that describe the distribution of income among households using various income concepts.³ The various income concepts (including gross, disposable and final income) effectively show how government taxes and benefits (both direct and indirect) affect the economic wellbeing of households of different types. The measures are largely built on the basis of information collected in the HES and ABS Government Finance Statistics but also draw on data from a range of other official sources. Together with the aggregate measures of income separate estimates are also published for the various components of income. These include, for example, estimates of the receipt of income-in-kind from government expenditures on various health, education, and housing services provided by government and estimates of indirect taxes paid as a result of household expenditures.

Census of Population and Housing (ABS)

Another important source of information on the distribution of economic wellbeing among individuals, families and households in Australia is the Census of Population and Housing, conducted at five yearly intervals since 1966. The census collects data about the gross income received by individuals aged 15 years and over, so the data for individuals can be aggregated to give measures of family and household income as well. It does not collect information according to source(s) of income precluding the possibility of identifying a person's or household's principal sources of income. However, because of its complete coverage of the population it offers much greater flexibility than surveys in assessing the economic wellbeing of small groups that may be of special interest (e.g. one-parent families, caravan park dwellers, Aboriginal and Torres Strait Islander people and recent immigrants to Australia).

Employee Earnings, Benefits, and Trade Union Membership Survey (ABS)

Conducted annually since 1998 this survey provides a primary source of information on the distribution of earnings. It incorporates data that was previously collected in three separate surveys, of which the survey of Weekly Earnings of Employees (Distribution), conducted annually since 1975, was the one that provided data on earnings. The survey provides information on the weekly earnings and employment benefits of persons aged 15 years and over in their main job if they were employees (wage and salary earners). Although similar data concerning earnings is available from surveys of employers, also conducted by the ABS, an advantage of this survey is that it provides information about the characteristics of wage and salary earners such as their age, sex and birthplace, that are not available from the other sources.

Average Weekly Earnings (ABS)

The quarterly survey of Average Weekly Earnings (AWE), based on samples of businesses since 1981, measures the average weekly earnings of employed wage and salary earners (excluding those employed in private agriculture) in Australia. It collects employment and earnings data from a sample of businesses taken from the ABS register of businesses. Estimates of average weekly ordinary time and total earnings are available for both full-time adult employees and all employees and are

Average Weekly Earnings (ABS) continued

classified by sector, state or territory, industry and sex. The AWE series is a major economic indicator and is used by various interest groups including Commonwealth and State government departments, employer associations, and trade unions. Uses of the data include: the adjustment of payments specified in Government legislation, both State and Federal, or in escalation clauses in business contracts; in economic and labour market analysis by both government and private organisations; and in representations in the award and wage case submission process.

Household, Income and Labour
Dynamics (HILDA) survey

This survey, currently being developed under the sponsorship of the Department of Family and Community Services, aims to provide national statistics describing how household income and patterns of engagement in paid work of household members change over time. The survey is a longitudinal one and aims to revisit selected households on a number of occasions, and so provide information that tracks outcomes of households in different circumstances.

Consumer Price Index (ABS)

The Consumer Price Index (CPI), first compiled in 1960 (with index numbers backcast to 1949), provides a general measure of changes in prices of consumer goods and services purchased by Australian households. The price indexes are produced each quarter. They refer to changes in prices of a constant basket of goods and services representative of consumption expenditure by private households in Australian metropolitan areas. In the 14th series, introduced in respect of the September quarter 2000, the price indexes are produced for eleven major commodity groups, 34 sub-groups and 89 expenditure classes for each of the six State capitals, Canberra and Darwin, and a weighted average of the eight capital cities. The CPI has been an important economic indicator for many years and actions related to movements in it, including wage adjustments, adjustments to pension and superannuation payments and adjustments to business contracts, to name a few, have had direct or indirect effects on all Australians. It now provides a general measure of price inflation for the household sector as a whole and is used by the Reserve Bank of Australia as the official measure of inflation for evaluating monetary policy.

Living Cost Indexes (ABS)

Living Cost Indexes (LCIs) first published in August 2001, are price indexes designed specifically to measure the impact of changes in prices on the out-of-pocket living costs experienced by four categories of Australian households. These analytical indexes have been designed specifically to answer the question: 'By how much would after-tax money incomes need to change to allow households to purchase the same quantity of consumer goods and services as purchased in the base period?' The indexes have been constructed to cover the period from June quarter 1998 up to and including the December quarter 2000 and will be updated annually, around May of each year. Using the principal source of household income to categorise households, the four household types for which these indexes have been constructed are: employee households, age pensioner households, other government transfer

Living Cost Indexes (ABS) *continued*

recipient households, and self-funded retiree households. These indexes represent the conceptually preferred measures for assessing the impact of changes in prices on the disposable incomes of households. The most notable difference between the LCIs and the CPI are that the former include interest charges but do not include house purchases, while inflation indexes do not include interest charges but do include house purchases.

Data from Centrelink

Since 1996, Centrelink has been the Commonwealth government agency responsible for the administration of payments to individuals and families eligible for government income support payments. It is from this administrative information that, in consultation with the Department of Family and Community Services who publishes much of the data, the agency produces information on the numbers of people receiving different types of payments, the amounts they receive, and information that describes the personal and family characteristics of income support recipients. From these administrative data Centrelink, have developed longitudinal data sets pertaining to samples of recipients which show the ongoing interactions that people have with the social security system.

Data from the Australian Taxation Office

The Australian Taxation Office organises the collection of income tax from Australians required to pay income tax. Statistical data describing the numbers of taxpayers by levels of taxable income are available from this source. Taxation data is currently being used by the ABS to present an annual series of statistics on numbers of people in Statistical Local Areas who receive wages and salaries. These data are available by age, sex and occupation (broad groups) and include data on levels of wage and salary income received.

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CHAPTER **8** **HOUSING.....**

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How does housing relate to individual wellbeing?

Dwellings satisfy a fundamental human need for shelter, security and privacy. A dwelling's physical condition, its location relative to amenities and services, and the extent to which it suits the needs of the people it houses, all affect the quality of life of the occupants. Dwellings, as homes, are also important to individuals and families as they can support the development of intimacy with others and personal identity. Because dwellings are often expensive to buy or rent, expenditure on housing can affect the amount of income a household has available to meet other needs.

How does housing relate to the wellbeing of society?

Dwellings, and the neighbourhoods they create, are an important part of the social infrastructure. The quality of housing predominant within a neighbourhood contributes to the quality of the social environment. A poor standard of housing is often associated with problems in other areas of concern such as poverty and crime. Because of the importance of the housing industry to the economy, and to the livelihood of the many people who work in the industry, community wellbeing is maintained if there is steady rather than volatile activity within the industry. Social capital is increased when people work co-operatively in providing suitable housing for those with special needs.

What are some key social issues relating to housing?

- Having a suitable supply of housing to meet people's needs.
- Assisting people to achieve home ownership.
- Provision of assistance for those who may have difficulty in obtaining affordable housing in the private rental market.
- Providing emergency accommodation for those suffering crisis or extreme disadvantage.
- Enhancing neighbourhood environments to improve living standards.
- Maintaining relative stability in the housing industry and thus the general economy.

What are the key definitional challenges?

Housing refers to the wide range of physical structures, or dwellings, that people live in, each with a range of attributes that help to determine their suitability to human needs. It can be difficult to define the difference between 'good' or 'poor' housing given the variation in personal tastes involved and the need to consider the trade-offs between the costs of dwelling attributes (such as location, size, quality of building materials and quality of amenities) and the ability of households to meet those costs. There is no consensus on these matters.

What are the main measurement issues?

There are difficulties associated with identifying groups in need of housing assistance as there are no nationally recognised benchmarks against which problems such as affordability, housing needs and housing quality can be measured. The logistics of collecting data on housing quality (e.g., need for repair, whether insulated, etc.), are challenging. Information obtained from occupants themselves can be unreliable especially where judgments are involved (e.g. the value of the dwelling). The use of experts to obtain reliable measures of dwelling quality by direct inspection is problematic because of the costs involved and its intrusiveness.

DEFINING HOUSING

As an area of concern, housing refers to the many issues surrounding the way in which the fundamental human need for shelter from the elements, and associated needs for privacy and security, are met. Housing is most readily defined in terms of the physical structures used to provide shelter which can take many forms. These forms can be culturally specific and change over time. For example, in the earliest days of Australian settlement by Indigenous people they included bark shelters, caves or rock overhangs, and when European settlers and convicts arrived, tents and slab huts were among the first forms of shelter. Today, detached houses with their own yards are common. Other forms include terraced houses, flats, townhouses and caravans, to name a few. Some homeless people find temporary shelter in places that were not meant to be inhabited. Most dwellings are arranged to meet the interests of individuals and their living companions (commonly family members) for separate, or private, places of residence. However, many places of residence also provide for people in special circumstances, for example, hotels for travellers, boarding houses for students, temporary road camps for travelling construction workers, crisis accommodation for the needy, nursing homes for the elderly, and so on.

Dwellings are complex structures that encompass much more than their physical forms. They have unique combinations of physical, economic, consumption and locational attributes, each of which have implications for the wellbeing of their occupants. Physical attributes include those related to their size and, for example, the availability and quality of heating, cooking and plumbing services, whether they have a good roof, a spacious garden, a garage or any number of other features. The economic aspects of dwellings include ownership rights, their cost and affordability, their value as investments. A dwelling's locational attributes, such as its proximity to the workplace and to services, and the quality of the neighbourhood environment in which it is placed, are also important attributes in considerations of wellbeing.

Housing can also be considered in terms of the many activities associated with its provision. These include the businesses of land allocation, infrastructure development, dwelling design and construction, organising purchases and sales, home maintenance and home improvement activities, meeting costs and helping those in need of support. These activities can be viewed as economic activities involving various groups within the economy. Those involved include governments, financial institutions, the construction industry, suppliers of building materials, real estate agents, community service groups concerned with providing emergency shelter and households themselves.

HOUSING AND WELLBEING

'But it's not a house, it's a home. It's got everything. People love each other, care for each other. It's got memories, great memories. I mean, it's a place for the family to turn to, come back to...'

from the motion picture *'The Castle'*¹¹

Individual wellbeing

At its most basic, housing satisfies people's fundamental need for shelter from the elements. However, places of residence serve many other functions in satisfying human needs. Dwellings, when they become homes, provide a place where people can withdraw from the world and enjoy privacy, a place to eat, relax and sleep, a safe place to keep possessions, a place to spend time with, entertain and care for family members and friends, and a place to pursue recreational activities. Not having a place to live which satisfies these human needs is a key hallmark of people in crisis whose mental and physical health are also likely to be at risk.

Places of residence also provide individuals with a key means for expressing their identity. The attributes of the dwelling itself, such as its look, size and location, along with whom it is shared, often indicate the values and social position individuals hold. The importance of housing as a form of self expression is revealed in the time and energy many people spend in furnishing, decorating, and renovating their homes and gardens, and in the space given to home improvement and related topics in the popular media.

Places of residence are important too because many formal social interactions and entitlements, such as getting a job, joining a club, taking up the right to vote, or accessing subsidised health services (by registering with Medicare) are predicated on the idea that an individual will have a fixed place of residence where they can be contacted. The inability to readily contact people without a home (who may also be disadvantaged in other ways) immediately imposes practical problems for those concerned with providing a range of support services, including medical, emotional and financial support.

There are many other aspects of housing that are associated with individual wellbeing. Important among these is whether or not occupants own their dwelling. Households who have purchased their own home are widely considered to enjoy benefits not so readily available to renters. These include greater security in being able to stay at that dwelling, the freedom to modify the dwelling to suit household tastes without reference to a landlord, and the benefits of being able to accumulate a substantial financial asset which can be used as a tradeable item to support the acquisition of other goods and services. However, there are also trade-offs against such benefits which can favour rental housing as an option. These include, the relative size of financial commitments, the opportunity costs of making financial investments in other assets which may yield a higher return to investment, and the level of flexibility available to move elsewhere in response to changing life circumstances.

Other attributes of housing affecting wellbeing relate to the various qualities of dwellings. These include their appeal, market value, and costs, their suitability to needs in regard to size, location — relative to appropriate services, places of work and other places of interest — and, among other attributes, the quality of the environment in which they are located. Because housing is, to varying degrees, integrated within systems of physical infrastructure (such as roadways, systems of water and power supply, telephone lines, and household waste disposal systems) the availability and quality of these services can also have a substantial affect on living

Individual wellbeing *continued*

conditions. Taking all of the above attributes together, areas in which housing standards are visibly good provide attractive environments for people to live and visit. Areas with poor housing, on the other hand, often reflect a range of social problems such as poverty, ill-health and crime. Such differences can create social tensions and give rise to a demand for community response.

As discussed in Chapter 1, an individual's wellbeing in any particular aspect of life (be it family and community relationships, health, education, employment or income) may be dependent on, or related to, their wellbeing in other aspects of their life. Such inter-relationships naturally also occur in relation to people's housing circumstances. Thus it might be expected that poor housing outcomes may influence a person's health or vice versa. Relationships between housing and access to educational and employment opportunities are also likely to exist for people in particular circumstances. For instance it may be that children in families who need to move between various residential locations may experience educational disadvantages if, as a result, they also need to move to different schools. Understanding the nexus between people's housing circumstances and other aspects of wellbeing among people experiencing life difficulties and those who are relatively well off may help in providing a suitable set of responses not simply related to the dwellings as physical structures.

Wellbeing of the society

There are also social good aspects associated with the business of meeting housing demand. Indeed the process of housing the population is recognised to be of great importance to the Australian economy. Activities associated with the construction and maintenance of dwellings are themselves typically labour intensive involving the use of many different materials and skills. The on-going demand for new housing arising from the growth in numbers of households sustains the lives of many people. Changes in levels of demand for new housing development can quickly impact on those involved in the housing industry with subsequent flow on effects to the rest of the economy. Reflecting this volatility, economic indicators measuring changes in housing industry activity are used as leading indicators of national economic performance.

Community wellbeing is enhanced if the transactions involved in providing suitable housing, including those between governments, financial institutions, and consumers, provide effective outcomes in meeting housing needs. This is facilitated by monitoring and disseminating information to facilitate efficient market operation and to enable the assessment of the desirability, costs and implications of intervention by Government. This includes information on changes in the stock of dwellings over time in relation to the underlying growth in demand for housing. In regard to the demand for housing this includes information about changes that occur as a result of demographic factors as well as changes which may be related to changes in households incomes, household prices and the nexus between the two. An adequate supply of housing, including appropriate growth in the housing stock over time, helps to avoid short to medium term fluctuations in dwelling prices and rent levels and thus assist with the affordability of housing. Because of the

Wellbeing of the society *continued*

importance of the housing industry to the national economy, and to the livelihood of those involved, community wellbeing is enhanced if there is relatively steady rather than volatile activity within the industry. In a broader context, the dissemination of good relevant information provides an important means to enhancing community wellbeing.

SOCIAL ISSUES

Home ownership

Home ownership is an aspiration for many Australians, and has been supported by governments over long periods of time. It is an aspiration that has widely been referred to as 'the great Australian dream' and is reflected nationally in high rates of home ownership.² Understanding the relationships between a person's, or household's, life-cycle stage, their income, housing costs and level of investment in home ownership, is especially important for developing policies and programs to facilitate home purchase among those who may need support. For example, understanding the typical size of the deposit gap faced by first home buyers (i.e. the difference between the purchase price of the dwelling and the amount able to be borrowed) can help to determine home purchase subsidies to first home buyers. Among home owners, the amount of equity in the family home, especially the degree to which it increases over the owner's life-cycle, is also of major interest to governments concerned with fostering self sufficiency. This is because the family home is commonly the largest asset that households will own and one that provides a key economic resource for maintaining their economic wellbeing.

Housing costs

Housing, and its associated infrastructure (roads, power supply systems etc.), is expensive to produce and maintain so individual dwellings can be expensive to rent or to buy. Land for housing can itself be expensive. This is partly because some parcels of land have locational advantages over others and because their availability is subject to competitive bidding processes. Because housing costs typically represent a large share of household expenditures, the cost of housing influences the amount of disposable income households have available for other purposes. Describing and quantifying the full range of housing costs in relation to household income provides a means for identifying households experiencing affordability problems. This information may then be used in formulating policy aimed at assisting those in need.

Imbalances in supply and demand

Too much or too little housing in any area is a concern for both producers and consumers of housing. Excess housing supply has negative effects on the value of houses (owners are worse off) and reduces activity in the housing industry thus affecting the livelihood of those engaged in the industry with flow on effects to the rest of the economy. Shortages in housing, on the other hand, obviously affect the opportunities for newly forming households to find suitable dwellings. Shortages also affect the general cost of housing (prices and rents go up) and, in order to meet demand, may lead to excessive increases in economic activity. However, anticipating the future by understanding the factors affecting supply and demand, can help

Imbalances in supply and demand *continued*

minimise the negative effects that imbalances in housing supply can have. Projections of growth in household numbers, as produced by the ABS, provide the primary element for assessing underlining growth in demand for dwelling units. Efficient operation of the housing market, and allocation of an appropriate level of national resources to housing, are also concerns of overall economic management.

Effectiveness of government assistance

Australian governments at federal, state and local levels attend to a diverse range of housing related issues. These include their involvement in setting housing construction standards and in regulating supply and demand through land use planning and a range of fiscal and monetary policies. Governments are also heavily involved in directly helping disadvantaged people to secure a place of residence, be it by providing low cost public housing, assisting first home buyers to purchase a dwelling, assisting households with rent payments, or providing funding support to community groups involved in providing long term community housing or crisis accommodation for people at risk of homelessness. Information that supports the development and evaluation of the policies and programs associated with these actions is critical to ensuring social goals are met.

The effectiveness of the more recent shift in approach to assisting low income households is a case in point. This shift has seen less emphasis being given to the provision of public housing and more to the use of privately owned housing in which case low income households may receive government support through rent assistance payments. Assessing the effectiveness, including the cost-effectiveness, of these programs is of vital interest to considerations of whether their goals are being met and as to whether other support strategies might be adopted. Understanding the factors affecting the supply and cost of private rental housing, especially at the low end of the market, also helps to determine if rent assistance is adequate in meeting needs when viewed as an alternative to public housing.

Urban development

The spread and density of housing, particularly in large cities, have become issues of community and public policy concern. Associated with urban sprawl and greenacre housing development have been concerns about the inefficient use of energy, the high cost of providing new infrastructure and public transport to distant locations, and the impact of housing on the natural environment. On the other hand, there is a demand for new housing arrangements that suit emerging population needs, such as the growing demand for housing that meets the specific needs of older people. These demands, together with new ideas about housing arrangements and urban forms, are forces for change. Information that describes and monitors patterns of housing development helps to inform community and public policy debates about these various pressures and how they might be handled.

Homelessness

Difficult economic conditions, the de-institutionalisation of mental health facilities and family breakdown are just some of the many factors that have given rise to an increase in homelessness and a demand for crisis accommodation. Statistical information quantifying the extent of these problems, and the characteristics and

Homelessness continued

circumstances of those involved, assist in planning appropriate responses.

Homelessness is a problem which is often intertwined with a wide range of other social issues, and levels of homelessness may be a strong indicator of other areas of social dysfunction.

Access to housing

While income and housing costs are major determinants of whether a household is able to secure and maintain good quality housing suitable to needs, other factors may also affect people's housing options. For example, landlords, and their agents, who generally would want to maximise their return on their investment may favour the selection of particular groups of people as tenants in a way that others may consider discriminatory. The extent to which any discriminatory selection processes are used to exclude particular population sub-groups (be they students, itinerant workers, people with disabilities, or people from particular ethnic or cultural backgrounds) is an important issue. The impact on both landlords and tenants of lease agreements being broken or of evictions are also of interest.

Community housing

Community housing, which is generally managed by not-for-profit organisations and/or local government (often with Commonwealth/State government funding support) provides an alternative to private and public housing. As well as involving local communities in the task of providing affordable transitional and long term rental accommodation it sometimes also aims to achieve links between housing and other services including disability services and home and community care. Monitoring the outcomes of various models of community housing for people with particular needs for support against people in similar circumstances but not in community housing can help shape policies designed to improve housing options for those in need of support.

POPULATION GROUPS

Social policy gives particular attention to identifying and meeting the housing needs of population groups most likely to have housing related difficulties. Some of the groups for which information is required are detailed below.

Low income households

The high cost of housing means it is important to be able to identify both the numbers and characteristics of households who cannot readily meet those costs. Using criteria which identifies those low income households paying a high proportion of their income on housing payments relative to community norms is a useful means for identifying the most disadvantaged groups. Associated information, concerning household size and composition, location of residence, and other household characteristics, help to refine policy options for providing assistance.

Indigenous people

Analysis of Indigenous households often centres on problems associated with dwelling quality, especially for those living in remote areas, and on living space relative to household size. The connection between the health of communities and the availability and adequacy of housing related infrastructure, such as water supply for drinking and washing, and sewerage disposal systems, is of particular concern.

Life cycle groups

Housing needs and preferences are highly associated with life cycle transitions. For example, the housing needs of a couple with three children are different from that of young adults leaving the parental home to start life on their own, or young couples without children. Social responses to needs are often directed toward specific life-cycle stages partly because household income and levels of home ownership are also associated with life cycle stages. Thus schemes to support first home buyers typically involve young families with low to medium incomes. The on-going ageing of the population has contributed to a greater focus on the housing needs of frail elderly people whose need for care and ability to live independently are issues of concern. Options such as retirement villages and nursing homes are some that have been designed to help these people with their special needs.

One-parent families

Family breakdown through separation and divorce can create a need for short term emergency shelter services. Over the longer term, one-parent families often experience economic hardship and dependency on income support systems while they support their younger children and, as a result, may experience difficulties in securing affordable housing appropriate to their needs. Lone parents who remain in the family home as an owner and need to maintain mortgage repayments may also face financial stress. Finding suitable housing is often an issue for both parents not only in terms of facilitating the children's access to the parent who lives in a different dwelling but also in terms of the need for the parent who lives elsewhere to provide a suitable living space if, and when, the children go to stay with them.

People with disabilities

While many people with disabilities do not have special housing needs there are others that do. These include people with mobility problems who may experience problems in moving to, from or within their home if not properly designed and some people who have intellectual disabilities and mental health problems who need special care arrangements. People with disabilities also often have low incomes so the availability of suitable low cost housing is an issue.

People in disadvantaged local areas

Housing and neighbourhood conditions can vary enormously by location. Describing the mix and quality of dwellings by area along with the characteristics of households in those areas, helps to direct support to those localities in greatest need.

Renters (public and private)

As home ownership is widely recognised as being the preferred form of tenure for most people, the characteristics and motivations of individuals and households who rent their dwelling are of interest to policy makers. For some, renting is a logical life-cycle episode, e.g. something young people do when they first leave home and

Renters (public and private) *continued*

before they save for their first owned home. For others it is a long term life choice, e.g. highly mobile persons who prefer not to be tied down by the commitments entailed in home ownership. Living in a rented home may be seen as a cost-effective alternative and one that enables other, possibly better, investment strategies to be adopted than purchasing a home. Yet, for others there is no choice: purchasing a home is not a possibility, at least in the short term, and renting is the only option available. Renters with low income represent a large proportion of people in need of government assistance. Information is needed to monitor the effectiveness of public housing provision and private rental assistance programs in helping these people.

Investors in rental dwellings

It is important to understand all the factors affecting housing supply. Investment by individuals in residential property has a significant impact on the supply of private residential rental dwellings. Information on investors and the properties they invest in provides a better understanding of private rental housing supply mechanisms, especially in regard to meeting concerns about the supply of affordable rental accommodation. This information may usefully include the demographic and financial characteristics of people who invest in residential rental property, reasons for investment, and selected characteristics of their most recently acquired properties.

FRAMEWORKS

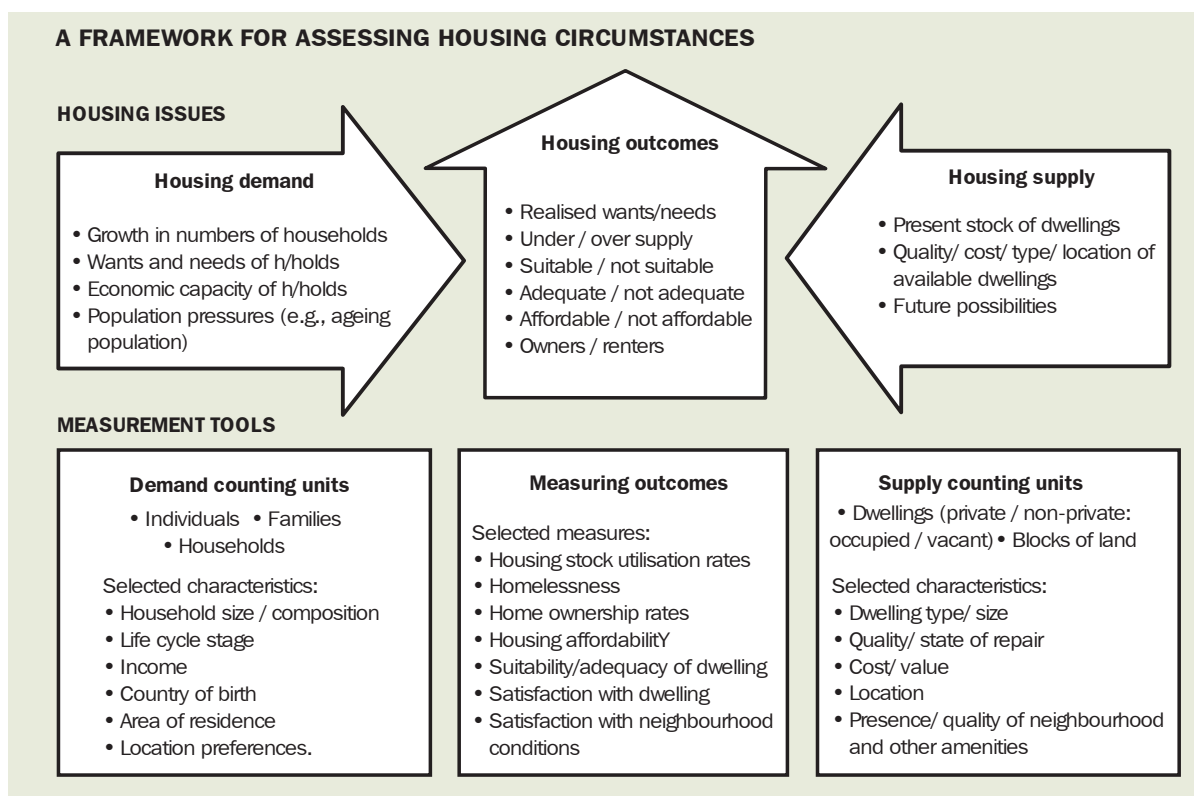
Obtaining statistical information which, over time, describes the number and characteristics of the places in which people live, the number and characteristics of the occupants of those places, and the relationship between occupants and their dwellings is fundamental to evaluating many housing related issues described previously. These elements are usefully viewed in terms of a framework that brings together notions of housing demand, housing supply and housing outcomes, as illustrated in the diagram on the next page.

Counting units

There are two key counting units used by the ABS that underpin this framework. These are households (the units used to measure housing demand) and dwellings (the units used to measure housing supply).

Households generally refer to the groups of people that occupy dwellings. Conceptually, households are defined to include: a group of two or more related or unrelated people who usually reside in the same dwelling, and who make common provision for food or other essentials for living; or, a person living in a dwelling who makes provision for his or her own food and other essentials for living, without combining with any other person.

Dwellings, on the other hand, refer to the structures in which people live. Dwellings are usually separate structures (houses or flats) built as places of residence, but also include discrete spaces within building structures where a person or a group of people live regardless of whether that space was built as a place of residence. A distinction is also made between private and non-private dwellings according to the purpose for which the dwelling was built and its actual use. Thus private dwellings refer to those dwellings usually occupied by households, as defined above, while



Counting units *continued*

non-private dwellings (such as hotels, boarding houses, hostels, hospitals and prisons) refer to premises which provide special-purpose housing services, often for large numbers of individuals. In non-private dwellings the counting units used are usually individual people as opposed to households. However, it should be noted that the distinction between private and non-private dwellings has not been static: some dwellings previously considered as non-private dwellings (for example, self care accommodation in accommodation for elderly people) are now regarded as private dwellings.

In the main there is a close correspondence between counts of households and counts of occupied private dwellings. That is, most dwellings are occupied by just one household. However, there are circumstances in which more than one household occupies a private dwelling, or where a household occupies more than one dwelling. As these circumstances are uncommon separate statistics for such groups are not usually provided.

Of course, not all dwellings are occupied at any given point in time. Some are in the process of being built or refurbished while others might be in the process of being demolished. Yet others may be vacant because their usual occupants may be temporarily away, perhaps on holidays, or because the dwelling may be available to rent or up for sale. These circumstances are all important for measuring demand and supply in local housing markets. A particular measurement issue that arises in this context is whether some or all usual residents are absent from a dwelling at the time

Counting units *continued*

of enumeration. Having information that describes the usual living arrangements of the population is clearly preferable to information that only relates to the subset of residents present at the time of a survey.

Housing demand

Issues concerned with housing demand tend to focus on numbers of households and especially numbers of households that may have special housing needs. Thus a full description of households is needed — by area, by size and composition, life cycle stage, income, and other characteristics which may be related to disadvantage, such as whether they include people of Indigenous origin, migrants from particular countries, people who are unemployed or people with disabilities.

Changes in housing demand over time can be assessed at aggregate levels and in terms of the changing representation of groups of concern within the population. Population growth is, of course, a key driver of housing demand. Anticipating population growth is itself a complex matter, especially within particular localities where housing development ultimately occurs. However, past trends, even when observed at national levels of aggregation, can offer important insights into likely future possibilities. Changing levels of population growth, monitored through levels of international and internal migration, and trends in fertility and mortality, help to set future expectations. For particular areas, understanding the forces that influence the movement of people, from one area to another, is particularly important to assessing housing demand.

While influenced to a certain extent by population growth, housing demand is more specifically influenced by changes in the number and composition of households. The tendency over recent decades for households to become smaller, shown by the shift in household size towards one and two person households, has generated far greater demand for housing than might be expected from population growth if household sizes had remained the same. The changes have also given rise to demand for different housing options to those in demand when household sizes were typically bigger. These options are associated with the different needs of various household types whose representation in the population has been changing. Changes include the decline in families with relatively large numbers of children and the increase in numbers of elderly couples, and elderly people who live alone. Changes in housing demand can be assessed by comparing the size and composition of the population taken at different points in time. However, they can also be assessed by analysing data concerning the expressed wants and needs of households themselves. The ABS has sought to obtain objective information about household wants and needs (or housing preferences) by recording details of their recent past patterns of housing consumption, whether they have moved or not, and, for movers, the reasons they had moved. While of a more subjective nature, information has also been collected about future housing intentions of households as a basis for assessing changing demand.

Housing supply

As with measurements of demand, a full statistical description of the stock of available housing at any point in time is essential for assessing issues of housing supply and adequacy. This includes information, by area, on the number and type of dwellings (separate houses, flats, etc.) and on the numerous attributes of dwellings that can affect the wellbeing of their occupants. Important among these are their size, the number of rooms, especially bedrooms, their age, the materials used in their construction, whether they have facilities such as baths and toilets, their need for repair and so on. Also of primary importance are details of their costs. Many of these measures can serve to establish housing quality norms and so help to identify whether housing conditions are relatively good or bad.

Like assessments of housing demand, changes in housing supply can be assessed through periodic cross-sectional studies of the stock of housing. However, changes may also be assessed by monitoring on-going data that describes additions and subtractions from a stock. Thus information obtained from building industry surveys on numbers of building approvals, commencements and completions help to provide contemporary information on the stock of dwellings by describing the additions to the stock.

Housing outcomes

Household and dwelling characteristics are important in their own right. However, it is the information that describes the relationship between these two that is vital to informing many of key issues in the housing area. Individual and community wellbeing may be conceived of as being enhanced if on-going demands for housing are met by supply and if any mismatches between the two, in terms of housing adequacy, affordability and suitability, are minimised. Wellbeing may thus be assessed through outcome measures that embody these notions. There are a number of concepts and measures that relate households to their dwellings which provide powerful means for identifying disadvantaged groups. Some of these measures are described below.

Tenure type

Housing tenure can be indicative of the extent to which occupants have secure rights over their dwelling. A classification of households by tenure type (separating owners, with and without a mortgage, from renters renting from private or public landlords or other less common arrangements) underpins much of the analysis of housing issues as it reflects the legal connections that households have to their dwellings and on that basis whether households may be disadvantaged. For households who have outright ownership, or who are on the path to outright ownership, the market value of their dwelling provides a key measure of their wealth and, as such, a key measure of the resources they may draw on to sustain their economic wellbeing. Analysing the relative proportions of households with various tenure arrangements reflects changing societal norms and preferences concerning the ideal of home ownership. As government programs are often specific to tenure arrangements (e.g. encouraging home ownership through assistance with start up costs or rent assistance for those in the private rental market) information relating to groups of people according to their type of tenure is vital in determining likely ongoing need for support.

Adequacy

Housing adequacy is a relative concept that refers to the way in which the physical standard of a dwelling compares to societal norms and which allows sub-standard dwellings to be identified. Housing adequacy can encompass a wide range of dwelling attributes. Such attributes typically include the dwelling's age, structural quality, its need for repair, and the presence, or absence, of basic amenities such as heaters, bathrooms, sewerage facilities, clothes washing facilities, etc. Notionally, attributes describing features of the neighbourhood environment and access to community services and facilities could also be usefully included.

ABS housing surveys collect information about such attributes from household members as indicators of housing adequacy. This approach has been adopted instead of one based on a physical inspection of dwellings by qualified building surveyors, which potentially offers a means of obtaining a single summary measure as to whether a dwelling meets community standards. Surveys involving such extra efforts, at times undertaken in other countries including the U.K. and the USA, are extremely expensive to conduct and can be overly intrusive. However, as Australia's housing stock continues to age, the demand for surveys able to more objectively measure the actual physical condition of the stock may increase in the future.

Another approach to obtaining information about housing adequacy has been to ask households about their level of satisfaction with their dwelling. Such information has been sought along with information about their satisfaction with their access to work and various neighbourhood services. Although there is criticism of such satisfaction data as being subjective, the real issue (ie from a housing demand viewpoint) is whether households will take future actions based on current satisfaction levels.

Affordability

Affordability relates to the measurement and analysis of housing costs relative to a household's ability to meet those costs. Housing costs can be divided into 'entry costs' (deposits, bonds, etc.) and 'ongoing costs' (loan/mortgage repayments, rental payments, rates, land tax, body corporate payments, and the costs of repairs and maintenance, etc.). While there is no single standard measure of housing affordability, one useful measure is the ratio of ongoing housing costs to income. Using this ratio, criteria can be set to help identify and analyse those experiencing the greatest problems. A commonly used identifier of households with such problems is if the household is among those in the lowest two income quintiles and spends more than 30% of their incomes on housing costs.

Suitability

'Suitability' refers to the match between a household's housing needs and the extent to which their dwelling meets those needs. There are many dimensions to suitability which might be considered, such as whether dwelling access arrangements meet the needs of people who have limited mobility, whether the dwelling has sufficient outdoor space for children to play, or whether there is space for visitors to stay. Other dimensions of suitability include the quality of a dwelling, and its neighbourhood. Suitability is largely defined by community norms which are often

Suitability continued

only explicitly stated in specific circumstances (such as when a housing authority allocates a dwelling to a family). There are, however, widely held views concerning suitability that apply to the wider population.

A commonly used concept of suitability relates to the utilisation of space. This concept is operationalised by relating the number of occupants of a dwelling to the size of the dwelling, commonly in terms of the number of bedrooms. Mismatches can result in a dwelling being under-utilized or over-crowded. The simplest such measure is the ratio of persons to bedrooms. Households with more (perhaps three, four or more) people than bedrooms can be separately identified from those which have more bedrooms than people or the same number of each. Analysis of the relative size of such groups over time, and according to other household characteristics, such as tenure type, income, affordability and household life cycle stage helps to identify whether problems of suitability are being addressed. The ABS has also used a more complex approach, based on standards developed in Canada, to describe levels of dwelling utilisation and to identify groups of concern. This standard, described below, is sensitive to both household size and composition.

The Canadian National Occupancy Standard

This measure assesses a household's bedroom requirements by specifying that:

- there should be no more than two persons per bedroom;
- children less than 5 years of age of different sexes may reasonably share a bedroom;
- children 5 years of age or older of opposite sex should not share a bedroom;
- children less than 18 years of age and of the same sex may reasonably share a bedroom; and
- single household members aged 18 years or over should have a separate bedroom, as should parents or couples.

Of course, the usefulness of such measures depends on the validity of the assumptions behind the standard. Increasingly, the norm in Australia is to give all children their own bedroom, regardless of age or sex. Also, in older households, rooms that were once bedrooms (and still contain a bed) are often used for other purposes (e.g. computer rooms, studies), even though they might continue to be reported as bedrooms in censuses or surveys. At a more fundamental level, the standard only addresses suitability in relation to sleeping arrangements. This does not necessarily provide insight into general housing standards, which might also take into account the size of bedrooms, or the number and size of other rooms in a dwelling.

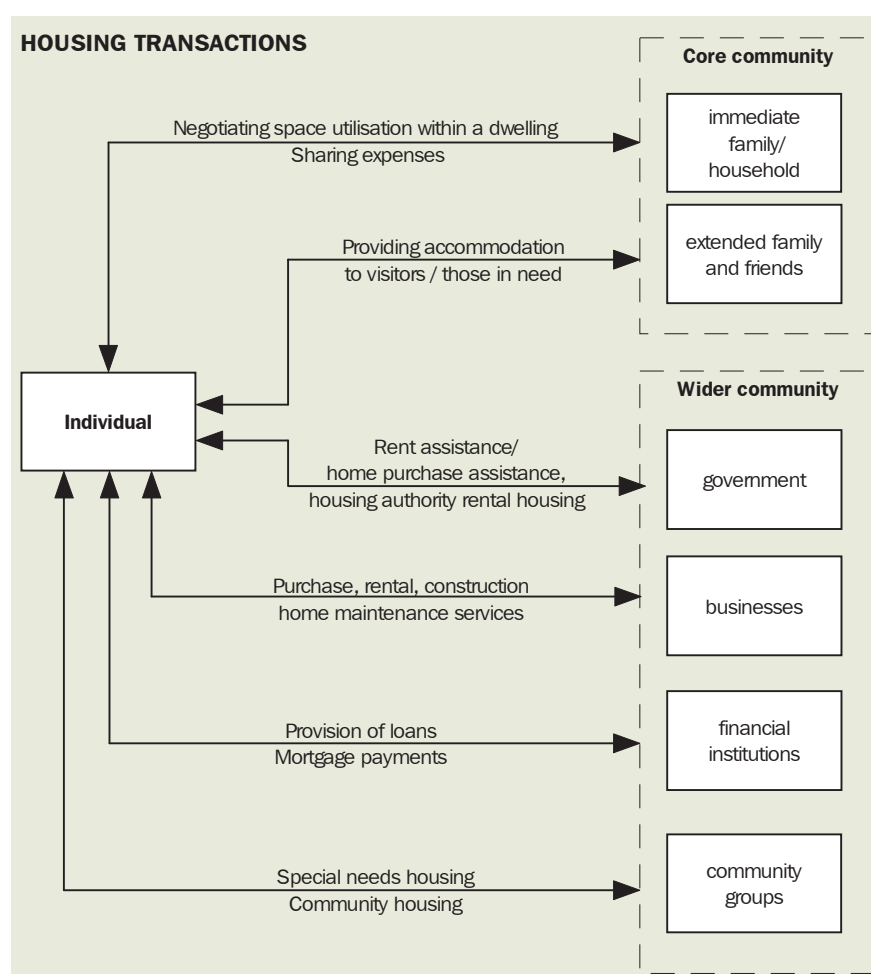
Housing transactions

The transaction model, described in Chapter 1, provides a complementary approach to considering the many issues associated with housing the population and thus for determining information needs. The model indicates that there are housing related transactions between individuals and other family and household members and

Housing transactions *continued*

between households and their core community (extended families and friends) that affect wellbeing. Such transactions may involve those concerned with the sharing of housing costs and/or ownership rights and the various ways in which people help each other in providing shelter in times of special need. However, the more common issues of social policy concern involve the transactions that occur between households and the wider community in meeting housing needs.

Indeed, meeting housing demand involves a complex series of interactions between producers, planners and regulators, and end users, facilitated by various information and financial exchange agents. The transaction model below helps to show some of the social and economic aspects of housing, including transactions between households and businesses, government, and community groups.

*The social focus*

All transactions have the potential to affect the wellbeing of people. Housing related transactions involving a group of particular social concern include those between low income households and government. For this group of households the transactions can include receipts of government income support payments, including rent assistance payments, and direct housing assistance through access to dwellings

The social focus continued

owned by government housing authorities. Many other ongoing housing related transactions also impact on people's wellbeing. These include the value of rent and mortgage payments and, for those households with investment properties, the receipts gained in rent payments. The purchase of a dwelling is typically among the largest of all financial transactions that people make throughout their lives. Information that describes the nature of the transaction according to purpose (first home, changeover home, or investment property), the costs involved, and the characteristics of purchasers, supports the analysis of how people meet their housing needs and how housing demand may change over time.

The industry focus

The nature and volume of transactions concerned with the provision of housing is also of vital interest in monitoring levels of economic activity at regional and national levels. This interest occurs because there are many businesses involved in the provision of housing and housing related services and because the amounts of money involved are often large. Businesses involved include property developers, real estate agents, builders, building material suppliers, building societies and banks, to name a few. Information about the size and structure of businesses involved, the types of services provided, their levels of activity (measured in terms of inputs and outputs which reflect transactions with other sectors of the economy) and business costs, supports the analysis of industry trends and the contribution that housing makes to overall economic activity.

DATA SOURCES

National Housing Surveys (ABS)

National housing surveys have been run by the ABS in 1988, 1994 and 1999 to support the analysis of various issues of housing demand and supply, and to provide measures of housing outcomes for the general population and special sub-groups within the population. Along with data describing the characteristics of households in occupied private dwellings and the dwellings they occupy, the surveys provide a range of status and outcome measures such as those describing tenure type, the ratio of persons to rooms, housing affordability, and on levels satisfaction with dwelling and neighbourhood conditions. The surveys have also variously collected details on the housing history of households and their reasons for moving.

Censuses of Population and Housing (ABS)

Conducted every five years, the Censuses have provided national and small area data for people living in private and non-private dwellings and more recently some data about homeless people. While the range of housing related data is limited compared to that collected in housing surveys they provide data on small groups of special interest, such as caravan park dwellers, which cannot be easily provided by surveys. The housing related data items collected in the Censuses have included: dwelling type, number of rooms in the dwelling, tenure type, landlord type, and amounts paid in rent or in mortgage payments.

Income, Housing Costs and Household Expenditure Surveys (ABS)

More extensive data on housing costs and their relationship to income, available at State, Territory and national levels, have been provided by the ABS Survey of Income and Housing Costs and the Household Expenditure Survey, conducted on a regular basis over recent decades. These surveys support detailed analysis of households that may be experiencing housing affordability problems. The most extensive data on current housing costs is provided by the Household Expenditure Surveys. Details collected include expenditures on rents and mortgage payments, rates, home insurance, repairs and maintenance, and fuel and power. This data can be related to household income and family type and used to investigate how spending on housing compares to spending on other commodities and services.

Community Housing and Infrastructure Needs Survey (Indigenous Housing) (ABS)

The 1999 Community Housing and Infrastructure Needs Survey (CHINS) was conducted by the ABS on behalf of the Aboriginal and Torres Strait Islander Commission to assist in the evaluation of policies and programs designed to improve housing and infrastructure services for Aboriginal and Torres Strait Islander people living in discrete communities and other community managed housing. The Survey collected information from: Indigenous housing organisations, concerning the number, characteristics and condition of their housing stock, the amount of rent collected and expenditure on repairs and maintenance; and from discrete Indigenous communities, concerning housing and related infrastructure, such as water and power supply, sewerage systems, drainage and roads. Information relating to access to health, education and other services was also obtained.

Housing and Locational Preferences Surveys (ABS)

There have been a number of one off, State specific, surveys conducted over the last two decades concerned with housing and locational preferences. These included those undertaken by the ABS in Victoria (in 1982, 1994 and 1999), in Western Australia (in 1983, 1988 and 1998), in Queensland (in 1991) and the Australian Capital Territory (in 1998). Information was obtained on duration of residence in the current dwelling, main advantages and disadvantages of the dwelling, type and tenure of previous dwelling and reason for moving, and intentions to move in the next two years, including type and tenure of future dwelling. Similar data items were collected in a number of capital city specific surveys (namely Sydney, Melbourne, Adelaide and Canberra) conducted during the early 1990s.

Rental investors Survey (ABS)

This survey has collected information on the demographic characteristics and economic resources of people who invest in residential rental property in Australia, and the characteristics of their most recently acquired properties. The survey, last conducted in 1997 and previously in 1993, also sought information on reasons for investment. Information collected from the survey is used to develop policies to encourage the private sector to invest in rental property, particularly at the low cost end of the market, and so help ensure the supply of rental housing is maintained.

Survey of Environmental Attitudes and Practices (ABS)

This annual survey, conducted since 1992, has included various topics, some repeated at two to three yearly intervals. Examples of topics to do with housing include: sources and usage of water, modes of transport to work and study, motor vehicle usage, type of home insulation, sources of energy for heating and cooking, the use of appliances such as heating and air conditioning and household waste management.

The Supported Accommodation Assistance Program (SAAP) National Data Collection (AIHW)

The Commonwealth and State and Territory governments administer the Supported Accommodation Assistance Program (SAAP) on a joint funding basis. SAAP provides recurrent funding for programs, generally provided by non-government agencies, designed to assist homeless people or those at imminent risk of becoming homeless. The SAAP National Data Collection Agency within the Australian Institute of Health and Welfare (AIHW), provides information on SAAP operations through five collections: the Client Collection, the Administrative Data Collection, the Unmet Demand Collection, the Casual Client Collection; and the Special Issue Surveys. Together these provide measures of the numbers and types of clients being serviced, service usage patterns as well as the numbers of outlets and the money being spent. The collections have been designed to identify individual clients who use services on a frequent or regular basis. As such, no information is available on those homeless people who do not make contact with the SAAP establishments.³

Housing Finance for Owner Occupation and Rental Investment (ABS)

This collection is a monthly collection of housing finance commitments by significant lending institutions in Australia. Separate sets of information are provided for the construction or purchase of owner-occupied dwellings and for the construction and purchase of dwellings for rental or resale which are considered to be personal and commercial finance activity respectively. The number and value of housing finance commitments are a leading economic indicators of the building cycle. Pronounced swings in housing finance flows over time may point to the emergence of supply/demand imbalances. Estimated numbers of loans made to first home buyers indicate the numbers of borrowers accessing home ownership.

Survey of the Real Estate Industry (ABS)

This survey, most recently undertaken in relation to activities in 1998–99, provides key measures on the size and performance of the Real Estate industry. The survey provides information that describes; the nature and structure of the industry; its activity in terms of employment, income and costs; and, its contribution to the Australian economy.

Construction Industry Survey (ABS)

Conducted at five (or so) yearly intervals and most recently in 1996–97 this survey provides data necessary to understand the size and structure of the home construction industry, and to monitor changes in industry structure over time. It provides details of the activities of a diverse range of private sector organisations

Construction Industry Survey (ABS) *continued*

such as those that provide house construction and other residential building services, site preparation services, concreting services, bricklaying services, plumbing services, electrical services, carpentry services, and painting and decorating services.

Quarterly Building Activity Survey (ABS)

The quarterly Building Activity Survey, conducted since 1980, collects data relating to all stages (commenced, under construction, completed) of both residential and non-residential building activity undertaken in the reference quarter. The statistics are compiled from returns collected from builders, and other individuals and organisations, engaged in building activity. The survey provides regular estimates of 'value of work done' and 'value of commencements' used for national accounts purposes and by economic policy departments. It also provides official National and State estimates of the number of dwellings commenced each quarter.

Building Approvals (ABS)

The monthly Building Approvals collection collects data relating to residential and non-residential building work above certain value limits approved within the reference month. Data from this collection provides timely estimates of future building activity and is an important leading economic indicator. The statistics are used extensively by both public and private sector organisations to monitor Australian building approval numbers. In the private sector, almost every major manufacturer or supplier of building materials uses the statistics to assist in making decisions on issues such as planning of future production, location of warehousing and other distribution facilities, and in the preparation of future marketing strategies. Market consultants and private individuals researching the economic, social and financial aspects of Australian housing also use monthly building approvals statistics as important inputs to much of their work.

Dwelling Unit Commencements (ABS)

The monthly collection of Dwelling Unit Commencements provides data on the number of new dwelling units reported by approving authorities as having commenced. This collection provides numbers of dwelling commencements at a more detailed regional level and on a more timely basis than the quarterly Building Activity Survey. The statistics are compiled from data provided by local and other government authorities on commencements of new house and other residential building jobs. Since the December quarter 1996 the collection has been restricted to Western Australia and South Australia. The data provides contemporary views of regions of growth.

Housing related price index surveys (ABS)

Quarterly price indexes for a range of housing items are constructed for the Consumer Price Index (CPI) from a series of special surveys. Price indexes are available for each capital city for project and established houses, rent levels for both privately owned and government owned dwellings, mortgage interest charges, land rates, repairs and maintenance, and charges for electricity, gas and telephone. A separate set of quarterly surveys provide the basis for producing price indexes for materials used in building houses.

Housing affordability indexes

Various industry groups have joined to produce quarterly indexes which aim to monitor trends in housing affordability over time. These include the 'housing affordability index' jointly produced by the Housing Industry Association and the Commonwealth Bank and the 'home loan affordability index' jointly produced by The Real Estate Institute of Australia and AMP Banking. While differing in their construction the indexes essentially aim to measure the costs of housing for home purchasers against household incomes. The first measure, for example, is based on the ratio of average household disposable income for all households in Australia to the 'qualifying' income required to meet payments on a typical dwelling, based on Commonwealth Bank lending data. When repayments consume 30% of household disposable income the index equals 100. The second index, on the other hand, takes the ratio of family income (updated on the basis of average weekly earnings) to average loan repayments. Both indexes are calculated so that increases in index values represent improvements in affordability. A part of the weakness of these two measures is that the house price element does not refer to houses of 'constant quality' so the measure is less consistent than it might be if the procedures used to produce house price indexes for the CPI, as produced by the ABS, were adopted.

Rent levels - Real estate and other agency sources

Data on rent levels is available from a number of other agencies. The Master Builders' Association produces estimates of average capital city rents based on classified advertisements in the 'To Let' columns of major newspapers. Based on administrative data required by State and Territory government agencies the Real Estate Institute of Australia produces quarterly estimates of property sales and median sale prices along with data on rent levels by dwelling type and number of bedrooms. The New South Wales Housing Department derives estimates of rent levels from bond lodgements with the Rental Bond Board. Because of the nature of the data sources used all these estimates suffer from deficiencies of scope and coverage.

ENDNOTES

1. As spoken by Darryl Kerrigan, the main character of the motion picture '*The Castle*'. Issued in 1997, writing credits belong to Cilauro, S., Gleisner, T., Kennedy, J., and Sitch, R.
2. National Housing Strategy, 1992, *The Role of Home Ownership*, Background paper No.10.
3. *SAAP National Data Collection, Annual Report, 1999–2000*, Australia Institute of Health and Welfare, (AIHW Cat. no. Hou 50).

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CHAPTER **9** CRIME AND JUSTICE

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How do crime and justice relate to individual wellbeing?

One important way in which social justice can be delivered to individuals is via an effective criminal and civil justice system. Individuals benefit from living in a society where standards of behaviour that are widely accepted are upheld, and where criminal justice systems operate effectively to minimise harm to people and property. Individuals who are victims of crime, and their families can suffer in many ways, and the fear of crime can also affect and restrict people's lives. Some individuals are at greater risk of becoming offenders or victims due to their circumstances or actions. The wellbeing of offenders and their families is also affected, e.g. by corrective and rehabilitation policy.

How do they relate to the wellbeing of society?

There are high financial costs incurred by society in preventing crime, providing justice infrastructures, repairing criminal damage, supporting victims and dealing with offenders. High crime rates or levels of litigation can also diminish social resources, such as community trust, confidence and freedom. Ultimately, the concept of justice is central to civil social interaction and social order.

What are some key social issues?

- Understanding the nature and extent of crime and how this is changing over time, and how and why crimes and crime rates differ between geographic areas.
- Developing effective crime prevention strategies through understanding causes of crime and factors affecting crime rates (e.g. the role of drugs and alcohol in crime), patterns in victimisation and offending, and pathways to crime.
- Optimising accurate measurement of crime, including unreported crime.
- Evaluating criminal justice strategies and agencies to ensure the criminal justice system is adequately funded and achieving high levels of efficiency and effectiveness.
- Effectively supporting victims of crime and their families and rehabilitating offenders.

What are the key definitional challenges?

There are fundamental standards of behaviour understood by most people in a society, and the laws of a country aim to reflect these. However, moral and ethical norms can change over time, and differ from one community to another. Criminal and civil justice systems can also differ between regions and societies, and vary in the way they define crime and administer justice. It is also challenging to define the scope of this potentially very broad area. As more serious crime and justice matters are eventually funnelled through the criminal justice system, this system provides a useful focus.

What are the main measurement issues?

- A great deal of useful data is available as a by-product of criminal and civil justice systems. However, some crimes go unreported or undetected. Household surveys can go some way to identifying unreported crimes.
- Differences between States in legislation and methods of collecting crime-related statistics can affect comparability, and hamper compilation of national data.
- Tracking the outcomes of criminal incidents through the different stages of the criminal justice system (i.e. the investigative, adjudicative and corrective stages) can be difficult as the organisations administering these stages (police, courts and corrective services) differ in function and data collection methods.

DEFINING CRIME AND JUSTICE

Crime

'An offence punishable by the State on behalf of the general public whose standards do not permit the offending behaviour.'

Definition of 'crime' in *Blackstone's Australian Legal Words and Phrases*.

Nearly every aspect of life has laws, rules, guidelines, codes or standards associated with it, from environmental protection to the operations of Government. Human interactions are monitored by anti-discrimination legislation, and family, civil and criminal legal systems. Employment is associated with contracts, earnings are subject to tax legislation, and business and trade are all highly regulated. People who drive need to be licensed and have their car registered, and those moving in and out of the country are subject to immigration and customs laws. There are standards of safety and manufacturing, intellectual property laws, land entitlements, birth and death registrations, and so on. Indeed, the abundance and scope of legislative material associated with living indicates the basic societal need to regulate behaviour and action at all levels.

Such regulation is aimed at ensuring human interactions are civilised and society remains intact and ordered. Laws delineate what is regarded as acceptable behaviour, from behaviour that engenders conflict or violence, that threatens the lives or resources of individuals, or that threatens the cohesion or longer term survival of society. And society makes a systematic effort to enforce laws, and detect and penalise acts that are in breach of laws or regulations. Such acts are commonly known as crimes. Thus, a crime is an act (or transgression or omission) that is in breach of the law — usually because it endangers or aggrieves individuals or society.

Crimes are punishable by the State. Thus people convicted of crimes may receive prison sentences, fines or community service orders, all of which are administered by Government organisations (with some corrective services contracted to private prisons). Crimes may be unsocial acts that are so common (e.g. traffic offences), or so complex (e.g. breaches of taxation law) that large government departments are needed to administer them. They may be activities that could go undetected or curtailed but for State intervention, e.g. drug offences. The Australian Standard Offence Classification (ASOC) discussed below provides a structure for classifying criminal offences by type.

Justice

Justice is a large and archetypal concept, often personified in myths, moral tales and other instruments that define our culture and its values. As such, there are many facets of meaning associated with this concept. Broadly, however, justice is the principle of balance and fairness brought to bear in the process of evaluating human behaviour and interaction. Thus it is closely associated with crime. In its widest application, the pursuit of justice, or equity and balance, within social organisation equates with the pursuit of social justice. Objectives associated with social justice parallel the range of human rights delineated by the United Nations, and include

Justice continued

ensuring all individuals within a society have the same opportunity to succeed in life and are not discriminated against. Social justice issues are closely related to wellbeing issues generally, and are discussed across all the chapters in this publication.

This chapter focuses more narrowly on justice as it is dispensed through the courts. More specifically, it focuses on criminal justice, as being one of the main arenas where broader principles of justice are institutionalised. A variety of other justice systems have evolved within society to carry out the balancing and protective functions that are central to civil social interaction and maintaining social order and public safety. For example, there is a large network of government support services that administer justice systematically — legal aid, conciliation and mediation services, crimes compensation and victim support services, and rehabilitation programs. These systems not only respond to specific acts in breach of the law, but administer broader judicial processes in relation to the behaviour of individuals, groups, or society as a whole, or to human rights.

Criminal justice

Criminal justice is society's response to crime. While it often has the effect of balancing or redressing the negative effects of crime, in its full range of operations, criminal justice also functions to prevent crime and promote personal and community safety. Thus imprisonment not only meets demand for retribution or reparation, but also effectively removes offenders from the public arena.

In Dostoyevsky's novel *Crime and Punishment*, the student Raskolnikov murders the pawnbroker Ivanovna. Raskolnikov is pursued by Nikodim the chief of police, is condemned by Petrovich, the examining magistrate and is sentenced to eight years in a Siberian concentration camp. The plot of the novel provides an overview of the main stages or elements of the criminal justice system. That is, the crime itself; the investigative component; the adjudicative component; and the penal or correctional component. Each of these stages involves different players — the crime usually involves offenders and victims; the investigative component involves the State and Federal police; the adjudicative component, the courts; and the corrective component, the prisons and other correctional systems.

Ethics, morals and values

The concepts of crime and justice both arise from the deeper notion of ethics, and the innate human sensibility that some behaviour is 'right' and some 'wrong'. However, many acts that breach moral codes of conduct are not articulated as crimes within our legal system. For instance, there may be many ways people can harm one another but remain within legal boundaries. Thus, formalised systems of justice only focus on a subset of moral and ethical concerns. Some non-criminal behaviours (e.g. school yard bullying, unsportsman-like behaviour, professional conduct) are addressed by other regulatory mechanisms of varying degrees of formality.

Furthermore, moral values change over time. Corporal punishment in schools was once accepted, if not encouraged, but is now illegal. Examples of behaviours that have been de-criminalised over time in some States include prostitution, abortion and attempted suicide. Values can also differ from culture to culture and individual to

Ethics, morals and values continued

individual. For these reasons, what is considered a crime, or an appropriate correctional measure is not always clear-cut. While many behaviours are universally recognised as harmful (e.g. assault, murder and theft), others are not. For example, some people consider Sydney's Gay Mardi Gras harmful to social cohesion, while others see it as neutral or beneficial. Individuals will have a different understanding of a particular crime depending on the role they play in relation to that crime. For instance, an individual may be a victim, an offender, a witness to a crime, or be supporting someone else affected by a crime. The public, police, courts staff and prison personnel will all have particular points of view in relation to specific crimes, or to crime and justice generally. All these players will have different expectations and experiences in relation to the criminal justice system.

The quality of a society's legal system lies in its ability to reflect and uphold commonly recognised moral and ethical standards of behaviour, and to reconcile diverse views about behaviour into a cohesive system. It attempts to do this through regulatory acts of parliament, common law precedents and legal codes. These regulations and laws, and their implications and interpretations, can play a reciprocal role in forming and maintaining moral sensibilities. However, any legal system is fundamentally only a mechanism for supporting the values and ideas a society holds in relation to social behaviour.

Scope of ABS crime and justice statistics

There is potentially an abundance of statistical data available from the administrative systems of the many organisations involved in regulating, monitoring and policing human behaviour. These range from organisations with only a minor role in monitoring legislation, through organisations such as customs, taxation, fair trade and patents offices, to institutions whose core business relates to crime, such as the various police departments. With its focus on describing the operation and performance of the criminal justice system, the ABS has tended to centre its statistical activity on these crime related organisations. Furthermore, data collection has focused on crimes that are at the serious end of a scale extending from homicide to parking infringements. These more serious crimes can be categorised into eight major groups: homicide (including murder, manslaughter, driving causing death), physical assault, sexual assault, unlawful entry with intent, robbery, other theft, motor vehicle theft, blackmail and extortion. The ABS also collects data about crimes (or perceived crimes) that may not have been reported to police (for instance in its Crime and Safety Survey). While these do not enter the formal criminal justice system, and may not necessarily have been recorded as crimes if reported, they may nevertheless have a major impact on individuals and society, and supplement data recorded by police. There are specialised areas closely associated with crime and criminal justice, such as family law and civil law, that could be considered within this chapter. Ultimately, criminal, civil and family law activity all have relevance to wellbeing. However, civil law cases, while they may greatly affect individual lives, at an aggregate level may not affect society to the extent criminal law breaches do.

CRIME, JUSTICE AND WELLBEING

Individual wellbeing

Victims of crime and their families can suffer financially, physically, psychologically and emotionally. Many of these effects cannot easily be compensated for. Beyond the direct effects of crime, individuals in a community also need to feel safe — secure from physical danger, and guaranteed against the loss or destruction of personal property. Thus wellbeing can be strongly affected by the fear of crime as well as the direct experience of it. People who witness crimes, or come across evidence of crime in their local area, can suffer anxiety and may feel demoralised or powerless. People may adjust their behaviour (e.g. stop going out at night), or take actions to secure their house and property. All these actions can affect the physical and financial wellbeing of those involved, and result in a loss of confidence and freedom.

Individuals involved in committing crimes and their families may also suffer, as corrective actions affect their lives. The fact that they have committed a crime may reflect low levels of wellbeing in other areas of their life, for example they may be facing difficult family, economic or health circumstances. Offenders can also be victims of crime themselves, and this victimisation may have played a role in their criminal behaviour. Involvement in the criminal justice system can potentially complicate or worsen these situations. In other words, the wellbeing of criminal offenders who have been apprehended becomes highly dependent on the way in which a society has agreed to administer justice and deal with offenders.

The wellbeing of individuals whose work is closely associated with crime is also affected by the potentially pressured and difficult human situations they encounter each day. For example, police face risks to their own safety as they go about preventing and investigating crime. Those involved in counselling crime victims, negotiating for compensation, rehabilitating offenders, and others involved in administering or supporting processes of justice can also face situations that affect their wellbeing.

Wellbeing is enhanced when individuals have access to a timely, fair and just courts system, a strong, honest and capable police service and an effective correctional system. The perception that the criminal justice system operates effectively to protect people from harm, to compensate victims, and to deal efficiently and fairly with offenders, can balance the effects of crime and fear of crime. For example, the suffering of crime victims may be alleviated to an extent by the knowledge that the people who harmed them have been incarcerated. People also benefit from perceiving that the criminal justice system is not likely to convict someone of a crime they did not commit, and administers justice fairly.

Wellbeing of society

Both criminal and civil law systems contribute to maintaining social order. Test cases in both areas can serve to establish new social norms, and amendments to criminal or civil law can usher in large scale social change, for instance changes to the Family Law Act in relation to grounds for divorce. There is an association of the prevalence of crime with low income, poor education and under-achievement in other areas of social concern. The rate and type of crime evident in a society can therefore be key indicators of the wellbeing of that society.

There are many government and community areas involved in monitoring and policing laws and regulations, supporting the criminal justice system, and supporting people involved in the criminal justice system. These functions incur costs, and justice consequently competes with other areas of social concern in government budgets. High crime rates also translate into increased costs for the community in terms of replacement and repair of items that have been stolen or damaged. High crime rates may also have negative effects on foreign investment, tourism, and other areas of the general economy.

Beyond the financial costs to communities, high rates of crime can affect community interaction and encourage the concentration of disadvantage and deprivation. Perceptions of corruption or bias in the criminal justice system, or rumours of ill-treatment of offenders by the police force or judiciary, can cause demoralisation within a community. On the other hand, the presence of a strong and trusted police force, and a fair judicial system can boost levels of confidence, trust and altruism in a community and facilitate open interaction.

SOCIAL ISSUES

Levels and trends of crime

The prominence given to crime in daily media reports is testimony to the fact that crime is an area of considerable community interest and concern. At the same time, crime stories can be sensationalised in the media and can create fear that is disproportionate to actual levels of crime. An important role of crime statistics therefore is to identify the nature and level of crime and violence in our society, and changes in these over time. Crime and justice data is also needed to facilitate comparisons within and between countries and geographic regions, and between various population groups (e.g. young people and older people).

Crime prevention

How crime can be effectively prevented is clearly a core issue of concern for communities and governments. Thus there is a need to be able to analyse criminal incidents to understand the situational factors that create opportunities for crime. For example, information is needed about victim behaviour in relation to criminal incidents, and about the effectiveness of measures people take personally to protect themselves from crime. Information about the locations and time of day in which crime occurs can also assist analysis in this area. The risk factors for crime victimisation can also guide the development of crime prevention strategies (e.g. are there connections between particular sociodemographic factors, such as age and sex, and crime victimisation). Repeat victimisation, and the circumstances

Crime prevention continued

surrounding the occurrence of repeat victimisation is also of interest, as is the sociodemographic situation of offenders and information about the effectiveness of the criminal justice system.

Effectiveness of criminal justice system

Community confidence is influenced by the effectiveness and efficiency of different elements of the justice system, particularly the police and courts. The community has expectations that the police will be able to solve crime, apprehend offenders and prevent the crime rate from increasing, and that offenders found guilty of a crime will have appropriate penalties imposed on them by the courts. The capacity of courts to deal with court workloads, and the length of time it takes to finalise court cases are therefore issues of interest. Other issues include police performance and the way in which police performance is perceived within the community. The level of unreported crime in the community is at least in part influenced by the level of confidence people have in the effectiveness of the police and other criminal justice agencies (e.g. minor theft may not be reported if victims feel there is nothing the police can do). For these reasons, information is needed to address issues relating to the efficiency and effectiveness of criminal justice agencies.

Response to crime

Community concern often focuses on the complex issue of sentencing. The community wants to ensure sentencing results in a reduction in certain crimes and is applied equitably to all people in the population. Some people may also support the view that sentencing should punish offenders and deliver retribution to victims. The need to exact some form of reparation from offenders is also recognised, and effective sentencing may thus allow for offenders to return value to the community (e.g. in the form of work done). People are aware of the need to impose appropriately severe sentences as a deterrent, and/or to contain offenders who pose risks to the community. However, the need to be lenient in some cases, and to rehabilitate offenders is also recognised. One aim of rehabilitation is to improve the lives of people who have become involved in the criminal justice system. Importantly, rehabilitation also aims to secure the longer term safety of the community by modifying the behaviour and values of offenders so they do not engage in crime when released from prison or other corrective restraints.

Imprisonment

Issues associated with incarceration are also complex. The effect on prisoners, particularly young prisoners, of exposure to other offenders in prison is a concern, as is the high cost of running corrections facilities. At the same time, society is concerned about the release of offenders back into the community and the danger to the community that they will re-offend. Information is needed about the efficiency and effectiveness of different corrective measures in resolving these diverse objectives. For example, how effectively do alternatives to prison, such as non-custodial penalties, meet needs for community and individual wellbeing; how highly is recidivism (repeated or habitual participation in crime) correlated with specific corrective strategies; and is there an over-representation of people in prison who committed relatively minor offences?

Imprisonment continued

There is also concern about the overcrowding of prisons, and whether this jeopardises rehabilitation objectives and/or affects prisoner wellbeing. The extent to which the judiciary uses diversionary sentencing options (e.g. fines) has a direct impact on the flow of persons into the corrections system, and on overcrowding. Sentencing decisions also affect the length of time expected to be served, which also has a crucial bearing on the number of prisoners in the corrections system. Defendants may also be held in custody pending court hearings, increasing the number of people in prisons, detention centres and other custodial facilities.

Violent crime

The incidence of violent crime, although lower than the rates of other types of crime (e.g. property and fraud-related crimes), raises community concern due to the potential severity of the consequences arising from it. The incidence of violence within families is of particular concern. Family violence involves a range of behaviours, some of which are recognised as criminal behaviour. These include assault and sexual abuse. The hidden nature of family violence makes it difficult to know the extent of this problem in our society. Other issues associated with violent crime include the extent to which firearms or other weapons are used by offenders, levels of gun ownership, and the effectiveness of safety measures imposed on gun owners.

Drugs

There is a need for information about the impact of drug use on individuals and society. The number of deaths from drug overdose has increased dramatically in recent years. From a statistical perspective, it is important to know, not only the extent of drug related crimes, (i.e. possession, use, dealing, trafficking, producing, manufacturing) but also the role that drugs and alcohol play in prompting other crimes, and the extent of crime associated with drug use/abuse (e.g. violent and property crime). The traffic in, and abuse of, illicit drugs is another issue heavily reported in the media and capable of engendering feelings of fear and mistrust in the community, for example, the fear of encountering people under the influence of drugs or overdosing, or of injury from syringes found in parks and on beaches. The age at which people begin to use drugs, and the prevention of drug addiction are also issues within the health and family areas of concern.

White collar crime

While crime is often associated with violence or theft, large-scale fraud and computer or Internet crimes can involve large numbers of people who can lose jobs and income. This so called, 'white collar crime', is therefore also an important social issue.

POPULATION GROUPS*Victims and offenders*

Important issues exist in relation to the victims of crime, for example, whether there are particular groups that become victims more often, and why this is the case. It is also important to understand offenders and the factors that influence the transition of people into criminal activity, particularly how and why juveniles may become

Victims and offenders continued

lifetime criminals. There are also people who are both victims and offenders, and the association between victimisation and offending is of interest, particularly for certain types of crime.

Men and women

There are issues surrounding the differences in patterns of crime and victimisation experienced by men and women. For instance, there are differences in patterns of offending and in the type and amount of violence experienced by men and women. Men are much more likely than women to be offenders, and hence, more likely to be imprisoned. In terms of victimisation, on the one hand, there are concerns about the high rates of males compared to females who are victims of murder and assault. On the other hand, women are more likely than males to be victims of sexual assault. Trends in crime patterns over time for these groups are also of interest. The differences between men and women can inform crime prevention policy and strategies that aim to minimise offending and victimisation for both men and women.

Age groups

Patterns of crime vary according to age and there are concerns that younger adults are more vulnerable both to becoming involved in crime, and also to being victimised. This is in relation to both serious crimes and more trivial matters. Young people, particularly young males, tend to be victims of crime more often than older people. At the same time, young people can be reluctant to report crime, or be unsure how to assert their rights in relation to crimes. The reasons young people do not report crime can be very different to the reasons older people do not report crime, and this difference is an important focus for policy formation.

Indigenous people

Prior to colonisation, the detailed kinship and ethical laws held in Indigenous cultures and reinforced through oral traditions operated to ensure not only that interactions between people had order, but that each member of the community was deeply obligated to maintain the natural resources on which people depended. Since that time, the social networks and physical landmarks on which this legal system was based have been disrupted. Reintegrating this system and protecting it for heritage, humanitarian and cultural reasons remains an important social issue.

Indigenous people have a high rate of contact with the criminal justice system (e.g. as offenders or victims) compared to non-Indigenous people, and are also over-represented in the prison system. These issues are of concern to governments and communities, and internationally. These high rates may be both a contributing factor to, and an outcome of, the disadvantage that Indigenous people experience across a wide range of social arenas. The fact that these high rates may be reflective of negative cultural attitudes and racial divergence in Australia is also of concern. Also of interest is the extent to which alcohol and drugs contribute to these rates and the feasibility of using alternatives to prison in responding to crime associated with Indigenous peoples. Crime and justice statistics play an important role in monitoring these issues and supporting analysis in this area.

FRAMEWORKS

The ABS is currently developing a statistical framework that will provide a structure for organising, collecting and reporting data about crime and the criminal justice system. One aim of this framework is to integrate the approach taken to data collection by the different, interconnecting sectors of the criminal justice system, and across the States and Territories of Australia and other geographical regions. While laws, penalties, and arrangements for administering justice differ across State/Territory boundaries, each State criminal justice system is similar in character at a broad level. A useful and practical structure for this framework is therefore provided by the typical flow of activity through the criminal justice system itself. The model presented below previews some aspects of this framework, but is intended primarily to represent some generalised ways in which framework development within the area of crime and justice might be approached.

A crime and justice framework

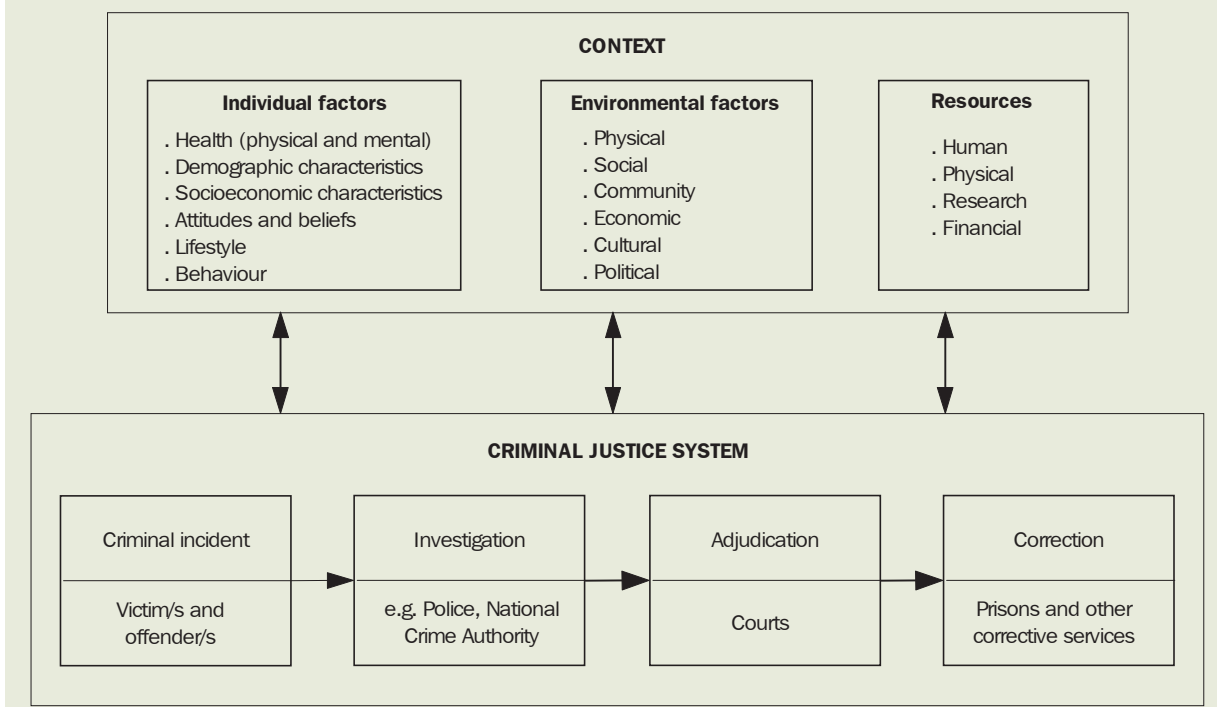
There are a number of different areas of interest associated with crime and justice for which it is important to have statistical information. For example, criminal incidents themselves can be measured and analysed. The characteristics of offenders and victims are clearly important. The operations of the criminal justice system can also be usefully measured, particularly from the point of view of evaluating the performance of these operations. Other areas of interest include public attitudes and perceptions about crime and the criminal justice system, and the broad socioeconomic factors and environmental contexts that contribute to the occurrence of crime in society.

The model represented opposite aims to broadly represent these diverse areas of interest. It identifies the broad socioeconomic and environmental contexts that influence individuals involved in crime and affect criminal justice processes and organisations. This contextual element of the framework identifies a range of factors that determine the nature and extent of crime in society, and contribute to justice outcomes, including the resources that flow into the criminal justice system. The other main element of the framework is based on the criminal justice processes that are initiated by the occurrence of a criminal incident. Thus key individual players (i.e. offender/s and victim/s) are represented, as are the various components of the criminal justice system. These entities (persons and criminal justice system organisations) are also key counting units used in the area of crime and justice. Most other data entities of interest, such as offences (or charges) and cases, are ultimately linked to a person or organisation. Key elements of the model are discussed in more detail below.

Context

Crime does not exist in a vacuum; rather, it occurs within the context of a complex social and economic milieu. It is often environmental factors that determine the levels and types of crimes committed as well as the response of the criminal justice system. These determinants of crime can be categorised under two main headings:

- factors affecting offenders and victims (i.e. environmental and individual), and
- factors affecting interventions (e.g. environmental and resource related).

CRIME AND JUSTICE FRAMEWORK — OVERVIEW*Factors affecting offenders and victims*

Environmental factors — Environmental factors that affect offenders and victims include the physical, social, family, community, economic, cultural and political environments in which individuals live. Impoverished physical, social and family environments have long been considered to be primary determinants of the development of criminal behaviour. Living in poverty, isolation from social support and being raised in a violent family are examples of these types of environmental risk factors. A lack of community cohesion in one's neighbourhood, poor economic conditions in society and conflict-ridden cultural and political environments are also potential risk factors for crime — both for offending and victimisation. The rate of unemployment, extent of use of the welfare system and the varying levels of education in society can all influence the prevalence and nature of crime. For example, higher rates of unemployment can have an impact on levels of crime.

An important environmental element relates to geographical location. The profile of crime varies across geographical areas both at the macro level (among States and Territories in Australia) and at the micro level (for example, between different suburbs or even different streets within a suburb). These differences in crime can be linked with regional differences in social, demographic and economic conditions. Understanding the nature of these links is important because it can shed light on how to manage and prevent crime. Knowledge about crime prevention strategies that have proven effective in a particular geographical area, together with information about the associated social, economic and other conditions that enabled them to succeed, can then be generalised to other similar geographical areas elsewhere in Australia.

Factors affecting offenders and victims continued

Individual factors — Individual risk factors include the mental and physical health status of offenders or victims, their demographic and socioeconomic characteristics, attitudes and beliefs, and lifestyles and behaviour. Poor health status may increase risk of involvement in crime. Certain sociodemographic characteristics such as age and sex may be the strongest determinants of criminal behaviour, and are important factors in understanding patterns of victimisation. Offending has also been related to antisocial attitudes and beliefs and to involvement with delinquent peers and associated lifestyles and behaviours. The behaviour of victims may also determine how vulnerable they are to criminal incidents and increase the risk of victimisation (e.g. not taking personal safety measures in certain circumstances).

The relationship between health and crime illustrates the need to consider the broader context in which crime occurs. For example, drug use crosses the boundary between the health care system and the criminal justice system, and a full understanding of drug use in society requires analysis of data from both systems. Using data beyond that available from the criminal justice system can thus broaden the scope of the picture of crime that can be built statistically. Other examples include accident and injury data, and hospital admissions data.

Factors affecting interventions

Environmental factors — Environmental factors affecting the structure and operation of the criminal justice system include factors relating to the physical, social, community, cultural, economic or political environment in which the criminal justice system, or branches of the system, operates. Physical factors can include the geographical location of elements of the system such as police stations. Community factors can be particularly important in determining how the criminal justice system operates and its effectiveness. For example, community attitudes to crime and the criminal justice system and the civic values held by the community have a strong influence on whether the community supports or hinders the operations of the criminal justice system. The cultural and political contexts in which the criminal justice system operates fundamentally determine its approach to crime, sentencing and correction at a broad level.

Resources — These include the full range of financial and non-financial resources available to the criminal justice system in carrying out its functions. Both the quality and quantity of human resources are fundamental factors in the effective conduct of criminal justice functions. Data about human resources can inform analysis of the need for recruitment or for training and support for people who are part of the criminal justice system. Physical resources include material objects such as buildings and equipment. Adequate accommodation is of particular importance to areas of the criminal justice system that have requirements for high levels of security, privacy or formality (e.g. prisons and custodial facilities, interview rooms, court rooms). As well as needing basic administrative equipment, the criminal justice system makes use of a wide range of specialised equipment, such as uniforms, fire arms, and forensic equipment, that is needed for its optimal operation. Research resources include, for example, statistical information and analysis that allows effective monitoring and evaluation to take place.

Criminal justice system

The way in which the criminal justice system operates is both sequential and consequential. The sequential element refers to the fact that events occurring within the system generally take place in a particular chronological order:

- (i) an incident occurs;
- (ii) the criminal justice system becomes aware of the incident (through a call for service or through its own investigation) and further investigates to determine whether a crime occurred (this stage is the investigative stage);
- (iii) the criminal justice system determines if criminal responsibility exists and directs that some form of penalty or obligation to be applied as the result of a finding of liability or guilt (this stage is the adjudicative stage); and
- (iv) the criminal justice system applies and manages the penalty or obligation (this stage is the correctional stage).

The consequential element of the system refers to the fact that decisions or activities taking place in early stages of the sequence have important effects on subsequent stages. For example, police activities will affect the number of charges brought before the courts. Similarly, sentencing decisions made by magistrates and judges will influence situations within corrective service organisations (e.g. the availability of prison accommodation). It is interesting to note that, while cases and offenders generally move through the system in one direction, information may cycle back through the system. For example, courts results information may go back to police to inform their activities. This interdependency between the sectors of the criminal justice system means that data about one component of the system can often usefully inform analysis within other components. For instance, the need for resources in particular areas may be anticipated, or processes adjusted to increase efficiency across the system.

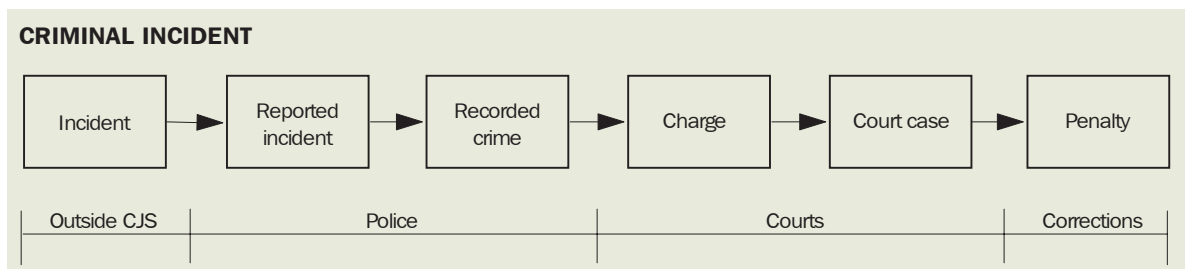
Incident

Within this framework, incident refers to incidents that are criminal in nature, whether they come to the attention of the criminal justice system or not. (The fact that some incidents are not reported to the police is indicated by a thin connection line in the overview diagram on page 248). Data that describes the incident can include, for example, data about the number of people involved, type of crime, the time of day it took place, and the location of the incident. Location information may be geographical and/or in terms of type of location (e.g. whether in a public or private place). Reported incidents initiate criminal justice processes.

As the incident moves through the criminal justice system, the way it is described and categorised often changes. For example, the initial incident may be categorised as a particular kind of crime or charge. As the incident is further investigated, more information may come to light, and the incident may be re-categorised to a different charge. The process of adjudicating the incident may further change the way it is categorised. Thus the final conviction may relate to a charge that is quite different from the charge initially recorded.

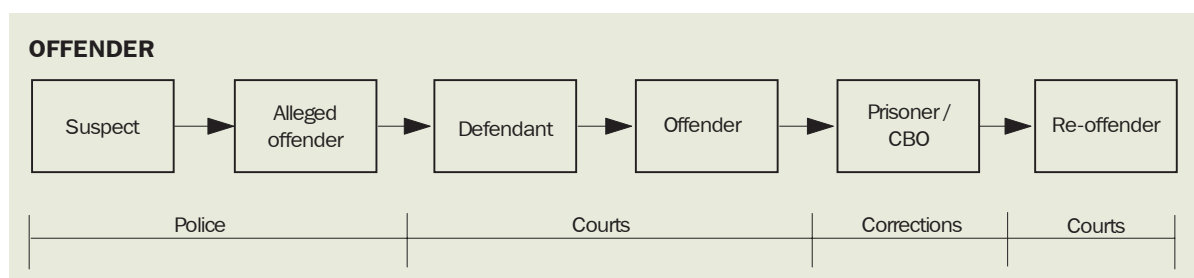
Incident continued

The naming convention used to signify the incident also changes as different stages of the system are encountered. When an incident first occurs, a *call for service* to an authority may be made. The authority contacted may record the call as a *reported incident*. If an initial investigation reveals that one or more offences have been committed, the reported incident may be labelled a *criminal incident* and enter the system of the investigating authority as a *recorded crime*. If a *charge* is then laid and passed on to the courts system, it becomes a *court case*. If guilt is determined, an adjudicated case will then have a *penalty* applied. This process is illustrated in the diagram below.

*Offender*

While the offender will not always be identified, and will not necessarily make his or her way through the criminal justice system, all crimes involve an offender. There may be one or a number of offenders. The offender may be an individual person, however, organisations may also participate in criminal activities. An organisation may enter the criminal justice system, for example, following an investigation by the Environmental Protection Agency. The organisation may be subject to adjudication in the courts and may then exit the system with a fine as the outcome of the determination of guilt.

As with the incident, the offender's status changes as he or she moves through the system. A person begins as a *suspect* in a case and then becomes an *alleged offender*. The status of *offender* is not conferred until after the person stands as a *defendant* and is proven guilty. The person may then become a *prisoner* or may be subject to a *community-based order* (CBO). (Also, if the offender commits another crime they become a re-offender.) Despite these changes, certain offender characteristics remain unchanged (such as sex and ethnicity), and these can therefore theoretically be collected at a single point in the system.



Victim

There may or may not be a victim associated with a given criminal incident. Drug use is probably the clearest example of a 'victimless' crime. There may be a number of victims in a particular incident. An organisation that secretly dumps toxic waste is an offender committing an environmental offence against society, and any number of individuals may also be harmed. Individuals may be victims, and organisations may also be victimised. For example, bank employees who misappropriate company funds commit an offence against that organisation. The victim's presence is implied throughout the criminal justice system, as adjudication and sentencing may be seen as being performed by the State on the victim's behalf.

Investigative stage

The investigative stage involves the police (including State, Territory or federal police services) and/or the National Crime Authority. Police agencies are involved in detecting, investigating, recording and charging. Such agencies are created for maintaining order, detecting and preventing crime, and enforcing laws. One of the principle functions of the police is to investigate the criminal incident and seek to identify the offender/s. The investigations may lead to a number of outcomes. In some cases offences turn out to be unfounded, in others, they are withdrawn. A search for an offender may continue, without results for any length of time. Where an offender is identified, they may be apprehended and proceeded against. This can be through the laying of charges in court, or can be accomplished via a number of alternatives to court, including cautioning, counselling or fining the offender. In some cases, evidence may exist to support a charge but police may be unable to effect an arrest or proceed against them (e.g. the offender has died, escaped overseas or has diplomatic immunity).

Adjudicative stage

The adjudicative stage involves the courts, who determine the guilt or innocence of defendants. Following hearing of the charges a penalty is imposed in cases where a finding of guilt is made. Fines and bonds are the most common penalties handed down by the courts.

Criminal and civil courts — Apart from criminal matters, the courts deal with civil matters. In other words, the same court infrastructure (e.g. court buildings and facilities) is used in dealing with civil and criminal case types. The essential difference between criminal and civil cases is the source of the lodgment and the parties in dispute. Criminal matters are brought to the court by a government prosecuting agency, which is generally the Director of Public Prosecutions, but can also be the Attorney-General, the police, local councils and traffic camera branches. Civil matters, on the other hand, are lodged by individuals or organisations (the plaintiff or applicant) against another party (the defendant or respondent) who responds to the file. Civil and criminal courts are also referred to separately because they have separate information systems and case flow management practices.¹

Family Courts essentially deal with civil matters. Family Court proceedings can be carried out by federal courts set up to run as Family Courts by the Commonwealth government. Note, however, that Children's or Youth Courts are State courts set up

Adjudicative stage continued

by the State and Territory governments and try *criminal* matters where the offender is considered too young (up to about age 17–18 years) to be in the adult criminal courts system.

Further, Coroners' Courts (which generally operate under the auspices of State and Territory Magistrates' Courts), inquire into the cause of sudden and unexpected deaths and into suspicious fires; their findings can be the source of criminal prosecutions.¹

While there are some small variations among States and Territories (often only a difference in name), the courts are structured along similar lines throughout Australia. Different levels at which the courts operate are described below.

- *Lower courts* — The term lower courts refers collectively to local or Magistrates' Courts and Children's Courts. Proceedings in these courts are conducted by a magistrate. Civil matters are dealt with in these courts as are the great majority of criminal matters, the offences being mostly summary offences. A summary offence is a less serious criminal offence and does not require a trial by jury in a Higher Court (e.g. traffic offences, offensive but not dangerous behaviour). The magistrate makes decisions on the relevant facts and law, determines whether or not a person is guilty as charged, and if appropriate imposes a penalty. Lower courts also undertake preliminary hearings (called committal hearings) for indictable offences to be tried in a higher court. An indictable offence is a serious criminal offence which generally requires a trial in a Higher Court. They may also deal with less serious indictable matters (known as summary-indictable offences) which usually require the consent of the accused person to be heard summarily. Examples are break, enter and steal, motor vehicle theft and malicious wounding. To date ABS collection of national court statistics has not included statistics from the lower courts, but a range of data are available annually from the Report on Government Services produced by the Steering Committee for the Review of Commonwealth/State Service Provision under the Council of Australian Governments (COAG).
- *Higher Courts* — The term higher courts refers collectively to District, Circuit and Supreme Courts. These are presided over by a judge and deal with more serious criminal matters related to indictable offences. The District (and Circuit) Courts hear trials, sentencing matters and appeals against decisions made in the lower courts. They deal with the majority of indictable offences such as armed robbery, sexual assault, arson and drug trafficking. The Supreme Courts conduct trials for the most serious indictable offences, e.g. murder. The proceedings are presided over by a Supreme Court Judge.
- *Courts of Appeal* — There are also courts of appeal, for example, the High Court, and Supreme Courts that sit as courts of appeal. However, the ABS collection of courts statistics has been concerned primarily with offences heard in the higher courts and not with appeals as such or with courts of appeal.

Correction stage

The correction stage involves the prisons and other correctional organisations and services. Sentences are managed and administered by correctional services agencies and may include imprisonment, community work and some types of bonds. It is important to understand some of the different types of correctional action that can be taken and the structures that exist in the corrections sector in order to understand the type of data available from this sector, and the various classifications available. There are two broad categories of correctional activity involving offenders.

- *Custodial* — involving offenders serving a prison sentence and those who are awaiting trial (remandees).
- *Non-custodial* — involving offenders serving correctional orders not involving incarceration (mostly probation and community service orders) and offenders serving post-prison orders, including parole and licence orders. The legislative basis for non-custodial orders differs among States, but all have the following three main types.
 - *Probation* — When a person is convicted for an offence for which imprisonment may be imposed, the court can instead make a Probation Order. Adult offenders can be released on probation by courts for a fixed period, during which time they receive supervision and a range of guidance, support and referral services.
 - *Parole* — This allows a prisoner to be released from prison at the discretion of a Parole Board to serve the remainder of their prison sentence in the community. Prisoners on parole are still under order of the correctional service and have specific conditions placed on them, for example, they may have to report to a local police station regularly and have conditions placed on their movements.
 - *Community service* — These provide a sentencing alternative to imprisonment whereby the courts can direct offenders to make restitution by undertaking a set number of hours of community service work.

Other processes of the criminal justice system

The description of the criminal justice system above illustrates the basic, typical flow of events through this system. In reality, the criminal justice system does not have a single flow of events, as individuals do not flow neatly from one process to another. Importantly, a given individual may not remain within the system throughout the entire process, and may exit at any number of points. For example, an alleged offender may not be charged and forwarded into the courts process. Instead, some sort of diversionary process may be initiated. This is particularly the case with juveniles, who are often diverted via cautions, family conferences, intervention and treatment programs, and the like. The courts system also makes use of diversionary tactics, sending offenders to treatment and intervention programs in order to remove them from the formal corrections system. It is also possible that some criminal justice processes might be skipped. This 'leapfrogging' may occur in any sector of the criminal justice system.

*Other processes of the
criminal justice system continued*

Some examples are where :

- individuals caught speeding experience the detection and recording of the incident simultaneously — the investigation activity is therefore unnecessary;
- individuals sent ex officio to the higher courts bypass the lower courts; and
- individuals who breach parole can be put back into prison without progressing through the courts system again.

The above process model should therefore be seen as a simplification of the criminal justice system as it exists in practice. A more detailed description of the processes and flows involved in the criminal justice system is illustrated over the page, although this also contains some simplifications.

Transaction model

A transaction model provides a broad framework for identifying relationships and connections that may shed light on some of the more complex social issues raised above. For example, the transaction model can be useful when examining the relationship between crime and levels of social capital (i.e. crime may decrease levels of community trust and interaction, and high levels of trust and interaction may decrease crime). Crime and justice transactions that lie outside the typical flows represented in the framework above can also be identified. For example, transactions involving individuals who are not offenders, victims, part of an offender or victim's core community, or part of a criminal justice organisation can be identified (e.g. transactions involving individuals attending jury duty or assisting police in their investigation). Justice transactions that occur at an intimate level, such as where moral values are imparted to children in the home, can be mapped, as well as criminal transactions that involve whole communities (e.g. street gangs), and transactions between individuals and non-criminal justice organisations (e.g. government bodies). Some further examples are provided in the diagram on page 258.

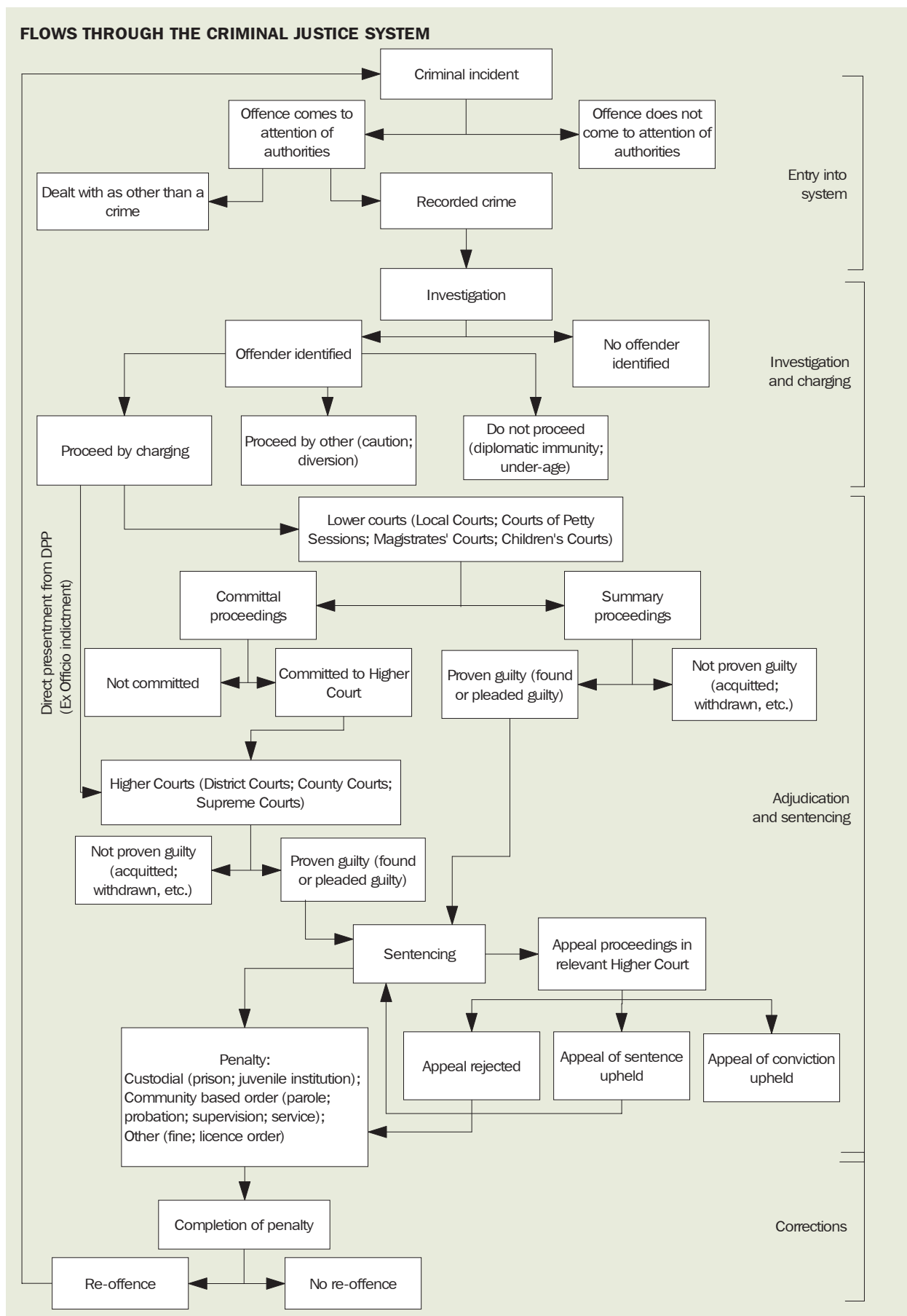
Key measures

Requirements for information about crime and justice can be divided into two broad groups:

- data that support the development of social indicators; and
- data that support management of the criminal justice system.

Social indicators

The focus of these statistics is to understand the populations that come into contact with the criminal justice system and the experiences they have. They are of key interest to those within the criminal justice system, academics, criminologists, social researchers, public policy advisers, the media, and the public as they help increase understanding of the perpetrators, targets, causes and effects of crime and assist in designing and implementing crime prevention and treatment programs. They are also of interest in reflecting the wellbeing of society in general and that of groups that are disadvantaged or have special needs.



Social indicators continued

They address issues such as:

- the nature and extent of crime and how this is changing over time;
- demographic and socioeconomic characteristics of people;
- relationships between victims and offenders;
- the social and economic effects of crime;
- the impact of laws, policies, programs and sentencing practices on crime rates;
- the relationship of social and economic conditions to crime; and
- the factors affecting crime rates, patterns in victimisation and offending, and pathways to crime.

Management of criminal justice system

Information about the management of the criminal justice system is important to those responsible for administering agencies within the criminal justice system, as it assists in determining resource allocations, policy making, planning and evaluation. This information is also of interest to the Council of Australian Governments (COAG) and the public to enable assessment of the relative efficiency and effectiveness of the services provided by the criminal justice system. Key types of management information include:

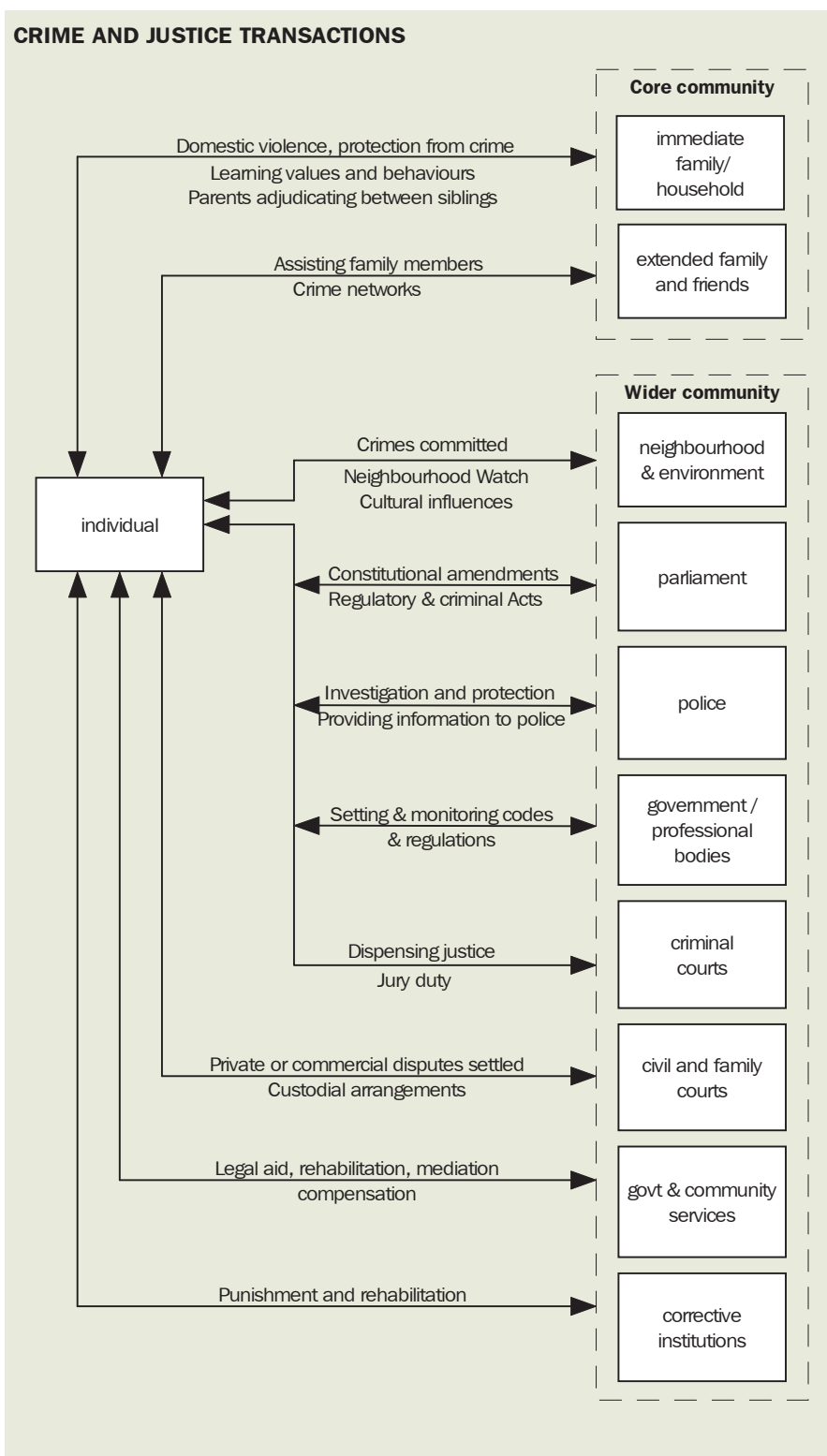
- the volume and nature of work entering the various sectors of the system (for example, numbers of offences, persons or incidents/cases) ; and
- the time required for this work to flow through a given stage

Analysis of trends in volume and time requirements can assist in planning case management regimes or infrastructure requirements such as the number and location of police stations.

Police measures

The administrative systems used by the police to manage their operations are an important source of crime statistics. Once a crime is reported to the police or becomes known to them, an offence report is created that records a range of information about the criminal incident, including details about the offence/s, the victim/s, and any suspected offenders. This information can then be used to provide measures of the number and characteristics of victims for selected offences. For example, it is possible to compile standardised national statistics on sex and age of victim and the relationship of the victim to the offender, the location at which crimes take place and type of weapon used. Other items of interest may be available depending on the procedures in particular States, for example, whether the offence was attempted or completed, and value of theft or damage.

If an offender is apprehended, another report — the apprehension report — is generated. In some cases this report is only generated when charges are laid. This report collects a range of information about the offender including age, sex and date of birth, charge history, and a range of sociodemographic information (e.g. country of birth). ABS police statistics do not yet provide counts of offenders, although there are plans to produce this data in the future.



Criminal courts measures

A high priority in court statistics is the compilation of national statistics on the volume and flow of criminal matters through the courts. At this stage, information is collected about defendants whose cases are initiated and finalised in the Higher Courts. Information is also gathered about the number of offenders awaiting hearing

Criminal courts measures continued

in the Higher Courts. At a future stage, the same information will be collected about defendants and caseloads in the Lower Courts. Key measures are:

- number of initiated defendants (i.e. new defendants whose cases entered the higher courts), and the way that their cases were initiated (e.g. committal from a lower court; direct laying of charges in a higher court);
- number of finalised defendants (i.e. defendants whose cases had a final outcome for all charges before the higher courts), and the way that their cases were finalised (e.g. charge proven guilty; acquitted; charge withdrawn);
- number of pending defendants (i.e. defendants whose cases were initiated but not yet finalised); and
- duration of cases for finalised defendants (e.g. elapsed time from initiation to finalisation).

The ABS has plans to expand the higher criminal courts collection to provide information on offences, penalties for proven charges, defendant characteristics and additional case processing details. The collection will also be expanded in scope to include other levels of the courts system.

Corrections measures

The annual census of prisoners gives a profile (demographic characteristics, legal status, sentence details) of prisoners at a point in time (i.e. a single day). The monthly series (published quarterly) gives information on:

- the 'first day of the month' prisoner population;
- average daily numbers for the month;
- number of prisoners received each month;
- changes in total over the past month; and
- number of unsentenced prisoners in remand.

This latter information is compiled from returns provided by the corrections agencies in the various States and Territories.

Household surveys

Annual recorded crime statistics relate to offences that have become known to and have been recorded by police, that may have been reported by a victim, witness or other person, or may have been detected by police. These statistics do not provide a total picture of crime, as not all crimes come to the attention of the police. To gain a more comprehensive picture of the nature and extent of crime, police statistics are complemented by information from other sources such as crime victimisation surveys.

Crime victimisation surveys are most effective when measuring crimes against individuals or households where there are specific victims who are able to recall what happened to them and who are willing to relate what they know. The Crime and Safety surveys collect information from individuals and households about their experience of selected crimes, whether these crimes were reported to police, the reasons for not reporting crimes, details of the criminal incident (e.g. number of offenders, location, weapons used, injuries) and crime related risk factors. This

Household surveys continued

information can be used to assess the risks of crime victimisation in various demographic groups (e.g., women, young people), attitudes to crime and crime prevention, and can potentially assess the extent of fear of crime.

Stock and flow measures

A stock and flow model can be usefully applied to statistical collection in the area of crime and justice. Stock measures can identify various statistical populations, each of which describes different aspects of the criminal justice process. Stock measures traditionally collected include stocktakes of the prisoner population at the end of a financial year. Stock measures from different areas of the criminal justice system can be compared directly, allowing analysis of status across the system.

Flow through the criminal justice system can also be measured over a given period (e.g. the number of persons charged by police, the number of defendants finalised by the courts, or the number of persons received into prison), as can the rate of flow through various segments of the system (e.g. duration of court cases, time served in prison).

Status and response measures

In a similar way, the status and response model discussed in Chapter 1 can be applied to the crime and justice area. Status measures, such as the crime rate in a particular region, can be analysed in combination with measures or indicators of government or community responses, such as increased police activity or changes in laws or penalties. Further status measures taken at a later stage may point to the consequence of these responses. Status measures taken at a different juncture in the criminal justice system may also shed light on relevant dynamics that are at work. For instance, an increase in the proportion of people imprisoned may reflect a specific government or community response to high crime rates. These status and response measures, when carefully selected and juxtaposed, can provide a contemporary picture of wellbeing and how it is changing in the area of crime and justice.

Crime and justice classifications

Classification of offences

The *Australian Standard Offence Classification* (ASOC) (Cat. no. 1234.0) was developed by the ABS and released in 1997. The objective of the classification is to provide a uniform national statistical classification for classifying offences for use by justice agencies and others with an interest in crime and justice statistics. It provides a classificatory framework for the comparison of statistics on offences across Australia. The ASOC is being progressively introduced into ABS statistical collections, with early efforts concentrating on collecting national statistics for major offences such as homicide, assault (including sexual assault), armed robbery, blackmail/extortion, motor vehicle theft and unlawful entry with intent. The national recorded crime statistics collection has used the ASOC to collect and publish information on victims of selected offences from 1999 onwards. The major divisions of the classification are given below.

- Homicide and related offences
- Acts intended to cause injury
- Sexual assault and related offences

Classification of offences continued

- Dangerous or negligent acts endangering persons
- Abduction and related offences
- Robbery, extortion and related offences
- Unlawful entry with intent / burglary, break and enter
- Theft and related offences
- Illicit drug offences
- Weapons and explosive offences
- Property damage and environmental pollution
- Public order offences
- Road traffic and motor vehicle regulatory offences
- Offences against justice procedures, government security and government operations
- Miscellaneous offences.

Australian Standard Classification of Drugs of Concern

The Australian Standard Classification of Drugs of Concern (ASCDC), published in 2000, was developed by the ABS for use in the collection, storage and dissemination of all Australian statistical and administrative data relating to drugs of concern. The ASCDC is essentially a classification of type of drug of concern based on the chemical structure, mechanism of action and effect on physiological activity of the drugs of concern. It is a generalised classification that can be used across both health and crime and justice areas. There are two main kinds of offences relating to drugs. The first relates to the use of illicit drugs. The second relates to the misuse of legal drugs.

MEASUREMENT ISSUES**Changing nature of crime**

Because crime and justice are linked to underlying moral code the types of crime included within a legal system are subject to gradual change over time. Thus regulatory acts and criminal justice practices are continually being created, amended and extended in response to social change. While this is a natural result of the active dynamic between popular values and encoded law, it can present data collection, compilation and analysis challenges. Furthermore, while crime data from criminal justice agencies will be based upon legal definitions of crime, data collected via victimisation surveys may be based upon an individual's interpretation of crime. This potential disparity is most likely to affect the less serious end of the crime spectrum.

Unreported crime

Much data about crime are based on reported offences, however, there are many circumstances in which the police are not informed of a crime. The type of offence committed, the victim's perception of its seriousness, and the police's ability to take action have a bearing on whether a crime is reported. A person may consider an obscene phone too trivial to report. Much more serious crime such as a rape may go unreported because the victim is too traumatised to discuss details with the police or in court. Many crimes may be known only to the offender and the victim, for example, child abuse, and some crimes may go undetected by even the victim (fraud for instance). There are also many crimes that do not involve a victim, and are

Unreported crime *continued*

therefore, by their nature, more difficult to detect, e.g. crimes involving the use of illegal drugs, or speeding. However, information on the number of crimes not detected by or reported to police is vital to gaining a realistic understanding of the full extent and nature of crime occurring in the society. Information about a wider range of incidents than those dealt with by the criminal justice system can be obtained through crime victimisation surveys, and one of the purposes of household surveys of crime is to determine the reasons why some crimes are not reported.

Identifying offenders

Crime statistics can be incomplete in their representation of offender patterns and characteristics. This stems in part from the simple fact that criminal offenders are not always known, and are usually deliberately avoiding detection. Even where offenders are identified, less variety of demographic and socioeconomic data is currently collected about them than is collected about crime victims.

Coordinating statistical information

A core measurement issue, currently being addressed through framework development and statistical standards initiatives, relates to the need to coordinate the collection and compilation of crime and justice statistics across a wide range of organisations with differing functions and methods of collecting information.

For example, in addition to criminal justice agencies, data could be sourced from other systems for delivering justice (e.g. legal aid, conciliation and mediation services, crimes compensation and victim support services, and rehabilitation programs), or from government departments involved in monitoring laws and regulations (e.g. the tax office and Securities Commission). However, each of these organisations has a different function, and uses a different system to record and compile statistical data. The conceptual approach taken in ABS crime victim surveys (or those run by other agencies such as the Australian Institute of Criminology) will be different again.

Even within the criminal justice system information is sourced from different organisations (police, courts and corrections organisations). Different agencies within these organisations each have their own information systems with varying structures, capabilities and purposes. These systems have usually been designed principally to perform administrative functions and tend to be based on a variety of different software applications.

In addition, there are nine different systems of criminal law in existence in Australia. Each of the eight States and Territories has its own criminal justice system that responds to offences against State or Territory laws and which has the power to enact its own criminal law. Crime legislation differs from State to State, and State and Territory police jurisdictions vary somewhat in the data items they collect in their offence and apprehension reports. Even where they collect common data items, there may be variations in the way the item is defined or classified. Until fairly recently, the States had not adopted common statistical concepts, definitions and classifications, and even now these common definitions are only used for compiling national statistics.

Coordinating statistical information *continued*

The federal criminal justice system also operates in each State and Territory, responding to offences against Commonwealth laws and enacting laws and sanctions for criminal offences in relation to its responsibilities under the Constitution. State and Territory legislation covers most offences relating to persons (for example, murder and sexual assault), property (for example, theft and property damage) and regulation (for example, traffic violations). Commonwealth legislation relates primarily to matters such as trade and commerce, importation/exportation, taxation, defence and external affairs.

Despite these differences, interrelationships between the different sectors of the criminal justice system are such that activities undertaken by one agency impact on the services within a connected or related agency. In some instances, national standards such as the Australian Standard Offence Classification (ASOC — described below) can be used to overcome these differences and produce information on broad categories of offences that are defined in the same way across States.

Tracking cases

The legislative and administrative differences outlined above can result in different data entities (e.g. court cases, convictions) being counted in slightly different ways as they move through the criminal justice system and change in nature or in name. This can hinder the ability of researchers to track individual cases through the criminal justice system in order to analyse cause and effect relationships. For example, it may be difficult to connect data about the number of crimes recorded with data about numbers of convictions or data about the sentencing outcomes of those convictions, to establish the patterns and outcomes of particular criminal incidents.

DATA SOURCES

Statistical measurement within the area of crime and justice also involves mapping the connections between a wide variety of organisations with differing but linked purposes, and sourcing and coordinating data from these many organisations.

National Crime and Safety Survey (ABS)

The national crime and safety survey, last conducted in April 1998, presents a national picture of how crime affects the Australian community. The survey focuses on those categories of more serious crime that affect the largest number of people: household break-in, motor vehicle theft, assault (including sexual assault) and robbery. It measures the extent of crime in our community, including the number of persons and households victimised and the number of crimes reported to police. It also provides information on the socioeconomic profile of victims and non-victims, and the characteristics of offences of the most recent incident experienced by the victim. National surveys were also conducted in 1993, 1983 and 1975.

Women's Safety Survey (ABS)

The Women's Safety Survey, conducted in February to April 1996, presents national information on women's safety at home and in the community and, in particular, on the nature and extent of violence against women in Australia. Information is presented about the prevalence of physical and sexual violence experienced by

Women's Safety Survey (ABS) continued

women and the nature of this violence, including: relationship to the perpetrator, where the violence occurred, and whether or not injuries were sustained. Additional information is reported about the actions taken in response to occurrences of violence, women's fears of violence and incidents of stalking and other forms of harassment.

Recorded Crime Statistics Collection (ABS)

The recorded crime statistics collection is an annual administrative data collection containing national statistics on victims of crime recorded by police in Australia. Monthly data has been collected for each calendar year from 1993 to 2000 inclusive. This collection is managed by the ABS, with data supplied by each State/Territory Police Agency. The purpose of these statistics is to provide indicators of the level and nature of recorded crime in Australia and a basis for measuring change over time. Data items included in this collection are: age of victim, sex of victim, relationship of offender to victim, location where offence took place, type of weapon used in the commission of the offence, and outcome of police investigation at 30 days from date offence became known to police.

Higher Criminal Courts Collection (ABS)

This collection contains information on the criminal workload of the Higher (Supreme and Intermediate) Courts of Australia. The Higher Courts deal with criminal cases involving serious charges, that is, those relating to indictable offences and is responsible for the trial and sentencing of persons or corporations charged with criminal offences. The data collected provide indicators of the volume and flow of defendants through the courts and provide a basis for measuring change over time. The ABS manages this collection with unit record data provided by the State and Territory agencies responsible for courts administration. The scope of the data that is publicly available includes: number of defendants initiated and finalised, detailed information on defendants finalised (including duration measures) and number of defendants pending at the beginning and end of the reference period. This collection was established in 1995 and from 1996–97 has been collected on a financial year basis.

Prisoner Census Collection (ABS)

This collection contains information on all prisoners who were in custody on 30 June of each year. The statistics are derived from information collected by the ABS from corrective services agencies in each State and Territory. Details are provided for each State and Territory, together with numbers and imprisonment rates. A range of information is also available on prisoner characteristics by type of prisoner. The ABS has managed the national prisoner census collection since 1994, based on methodology established by the Australian Institute of Criminology. These statistics were released as annual reports to the Corrective Services Minister's Council for the years 1994 to 1999 inclusive. From 2000, the statistics contained in this collection has been produced as an ABS catalogued publication.

Corrective Services Quarterly Collection (ABS)

This collection contains monthly information on persons held in corrective services custody in Australia. The statistics are derived from information collected by the ABS from administrative records held by corrective services agencies in each State and Territory. The ABS has been providing quarterly prisoner statistics since 1995, based on a methodology established by the Australian Institute of Criminology. These statistics were produced as reports to the Corrective Services Minister's Council. From June 1998 this collection was produced as an official ABS publication. Details are provided for each State and Territory, together with numbers and imprisonment rates by type of custody. Information is also available on prisoner numbers by legal status and by sentence type, for prisoners and for Indigenous prisoners, together with the number of sentenced receptions into custody and the number of federal prisoners.

National Aboriginal and Torres Strait Islander Survey (ABS)

This survey, conducted in 1994, covered a range of social, demographic, health and economic characteristics of the Aboriginal population. Specifically related to crime and justice, respondents were asked about their access to and use of legal services, arrests, personal safety including family violence, attitudes to and relations with police, experiences with the justice system and voting patterns.

Legal Services Industry Survey (ABS)

This survey, last conducted for the 1998–99 financial year, presents information relating to legal practices and other organisations in the legal industry. Specifically related to criminal law, information is included on the number of legal firms practising criminal law, their income and the proportion of total income for each practice. In addition, information is also included for legal aid authorities and community legal centres on the number of criminal cases opened and criminal legal advice services. This survey was also conducted in respect of 1995–96, 1992–93 and 1987–88.

Security and Investigative Services Survey 1998/99 (ABS)

The Security Services Survey, conducted in respect of the 1998–99 financial year, collected information on businesses whose main activity was the provision of security, protection and private enquiry services, except for police services. Data collected includes sources of income, characteristics of employment, main activities of persons employed, business size and selected performance ratios. In addition, businesses are listed against their main security activity.

Causes of Death (ABS)

This collection contains data on deaths, including perinatal deaths, registered in Australia and is compiled from data made available to the ABS by the Registrars of Births, Deaths and Marriages in each State and Territory. The most recent publication of this data was in 1999, with data available from the ABS as far back as 1964. There is limited data available on deaths related to external causes (e.g. assault).

Australian Illicit Drug Report (ABCI)

The Australian Illicit Drug Report (AIDR), most recently produced for the 1999–2000 financial year, provides an assessment of the extent and nature of the illicit drug situation in Australia, as well as a synopsis of the primary illicit drug-cultivating and drug-production countries. Statistics included in the report are compiled from data collected by the ABCI from each State, Territory and Commonwealth police service, then aggregated and analysed to provide a national perspective. Statistics presented include data on illicit drug arrests and seizures, and is further disaggregated by type of drug, state/territory and sex of consumer/provider.

National Homicide Monitoring Project (AIC)

The National Homicide Monitoring Program (NHMP) was established in 1990 following recommendations of the National Committee on Violence. The aim of the Program is to identify the characteristics of individuals which place them at risk of homicide victimisation and of offending, and the circumstances which contribute to the likelihood of a homicide occurring. Data is collected by the AIC from each State and Territory police agency in the form of individual crime records. This data is then analysed and statistics are presented on the number and type of incidents, offenders and victims. More detailed data is available on outcome of investigations, weapon use, victim–offender relationships, precipitating factors and other victim and offender demographics.

National Deaths in Custody Collection (AIC)

The Deaths in Custody collection, which began in 1992, covers all deaths that have occurred in police, prison and juvenile justice custody throughout Australia. Data is collected by the AIC from each State and Territory police agency, correctional authority and juvenile justice/welfare authority. This information includes details on the personal characteristics of those who have died, their custodial and legal status, and the cause and manner of their deaths. The AIC also has available custodial deaths data obtained from the Criminology Unit of the Royal Commission into Aboriginal Deaths in Custody for the period 1980 to the end of 1989.

Drug Use Monitoring Collection (AIC)

The Drug Use Monitoring in Australia (DUMA) collection, which began in 1999, provides data on illicit drugs at both the local and national level. Information includes statistics on supply and demand, patterns of drug use, local drug markets, criminal activity and treatment. DUMA is run in a partnership arrangement between the AIC, local police services and researchers, with the primary data collected by local police services, local universities or researchers. At present, the DUMA collection has just received federal funding for a further two years.

Juvenile Justice Collection (AIC)

Currently in Australia, this collection is the only existing national data on juvenile justice, and is a collection on persons in juvenile detention centres. The information in this collection is provided to the AIC by State and Territory departments responsible for the administration of juvenile justice within their jurisdiction. This collection has been established since 1981, and provides a count of the number of youth in detention centres, classified by age, sex, Indigenous status and legal status (remanded or sentenced) at the end of each quarter.

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CHAPTER **10** CULTURE AND LEISURE

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How do culture and leisure relate to individual wellbeing?

People's values and actions are influenced at all levels by cultural factors, which also provide a backdrop of meaning and tradition against which individual experience can be understood. People participating in various forms of cultural expression, such as the arts, are empowered through being creative, developing and using skills, and contributing to cultural identity. Leisure time gives people an opportunity to recover from pressures of work and other commitments, to bond with family and community members, to pursue their interests, and to reflect on their life direction and meaning.

How do culture and leisure relate to the wellbeing of society?

Culture determines many aspects of social life. Both culture and leisure activities assist in developing national identity and forming community networks and bonds crucial to social cohesion. Cultural products, e.g. art, film and literature, reflect and examine social events and trends, and heritage protection preserves social knowledge. Industries associated with culture and leisure are growth industries and are thus important to Australia's economic wellbeing. The culture and leisure sector also contributes to economic development through facilitating creativity, innovation, and self-reflection.

What are some key social issues?

- Ensuring all groups in the population have adequate leisure time and access to a full range of cultural and leisure products, activities and facilities.
- Understanding the effects — both positive and negative — of particular cultural or leisure activities on wellbeing (e.g. sports, arts, gambling, television).
- Encouraging activities that build social capital and are life enhancing, and monitoring activities that have the potential to detract from individual or social wellbeing.
- Preserving and protecting Australian cultural heritage, and ensuring all groups are able to fully understand and express their own cultural forms and preferences.
- Ensuring responsibility for cultural and leisure funding is appropriately shared between individuals, communities, private organisations and the government.

What are some key definitional challenges?

Culture can be defined as the shared sense of meaning that determines a group's way of life. Following from this, activities that focus on defining, interpreting or expressing this meaning can be seen as cultural activities. However, it has often been considered that culture 'eludes definition', and that there is 'no universally accepted definition of its content' (United Nations Economic Scientific and Cultural Organisation (UNESCO), 1979). Similarly, leisure activities can be defined broadly as activities undertaken in free time, but there are many activities or situations for which this definition is not clear cut, and many alternative approaches to defining leisure. Both culture and leisure are multifaceted concepts, and definitions may need to be refined in the context of different research and data collection objectives.

What are the main measurement issues?

The culture and leisure sector is characterised by a large proportion of people who supplement their culture and leisure work with other paid employment, or who work without financial reward. Collections that do not collect information on second jobs, or on people who work without pay, may therefore underestimate the size of the sector.

DEFINING CULTURE AND LEISURE

Culture

In a traditional anthropological or sociological sense, the term culture describes the collective behaviour patterns of a group of people — that is, their way of life. It refers to the characteristic way they approach all living activities, i.e. work, play, family life, community management, and so on. Objects arising from these activities (e.g. clothing, tools, buildings, toys, etc.) can represent a group's culture, as can the stories, myths, art, music, rituals and traditions created and perpetuated by the group.

However, while objects or rituals may embody a culture's nature, culture exists essentially in people's memories and consciousness. Thus people within a culture do things in a similar way because they have a common way of understanding life and their environment — and a common system of belief and symbolism. For this reason, people from different cultures have to learn not only each other's spoken language, but each other's symbolic, or cultural, language (their codes of behaviour, the meaning of particular visual and gestural signals) in order to fully understand one another. A group's shared sense of meaning emerges from their collective experiences and unique historical and environmental circumstances. It imbues all their behaviours, giving them a collective personality — a character, or cultural identity. Thus culture can be defined as the shared sense of meaning that determines a group's way of life.

Cultures can be associated with particular locations (e.g. national cultures, ethnic groups), but can also exist across geographical boundaries. For example, cultures can form around a group of people interacting over the Internet who collectively understand the significance of particular symbols or behaviour conventions. People usually participate in a number of cultures (e.g. a family culture, a work culture, and a religious culture). Cultures also evolve over time. The style of dress, music or architecture we preferred in previous eras differs from what we prefer now, partly because our culture, or the symbolism we use to signify attractive or appropriate dress, enjoyable music or interesting architecture has changed.

Various areas of human activity focus on expressing, exploring and/or sustaining the cultural aspect of our lives. These include, but are not limited to, heritage, arts, sports, religious or spiritual activities, and secular rituals, ceremonies and traditions (these areas are defined in more detail on pp. 280–281).

Leisure

There are a number of ways of approaching a definition of leisure. For example, leisure activities could be characterised as activities that provide enjoyment or refreshment. However, as these are subjective concepts, this approach is less than optimal for the purposes of statistical measurement. It involves making value judgements that tend to exclude certain activities according to the viewpoint of the people making the judgements. Perhaps the most straightforward way to characterise leisure, at least for statistical purposes, is in terms of time. In other words, leisure

Leisure continued

time can be said to be the residual time a person has after they have attended to the necessities of life (e.g. work, family care, self care). This time can be described as 'free time' — meaning that during this time a person is free of obligation or duty, and free to choose the way in which the time is spent (i.e. what activities they undertake in that time).

This definition is inclusive of a wide range of human activities. It tends to include activities undertaken with the primary intention of enjoyment, relaxation, rejuvenation or recreation, in other words, activities that enhance people's lives in some way. Thus free time involvement in hobbies, arts, crafts and sports is covered, as is going on holiday, to the movies, to restaurants, clubs, art galleries or museums. However, this definition makes no assumption that leisure activities are inherently beneficial. It includes activities enjoyed by some but condemned by others, and activities with both positive and negative personal and social implications. For instance, activities such as watching television, playing computer games or gambling can be relaxing, but, when done to excess, may influence health negatively. A range of activities that can be clearly linked to some negative outcomes remain prominent leisure choices (e.g. vandalism, drug use).

Definitional boundaries

There are areas where boundaries between types of time use (e.g. free or committed) and types of activities (e.g. leisure or duty) are not clear cut. For example, some people may see interacting with relations as a leisure activity, while others see it as something they are committed to do. Parents taking their children to a park, or to a movie in school holidays, are fulfilling their duty to care for their children but are also undertaking typical leisure activities.

The distinction between work and free time is also often blurred. For example, people tend to spend more time working at jobs they enjoy. Some domestic work (e.g. gardening, cooking, home repairs and renovations, and shopping) is becoming increasingly intertwined with leisure. These grey areas arise partly because the division between work and free time is in some ways artificial. There was less of a distinction between work and leisure in pre-industrial Western society, but for many people, industrialisation brought with it long uninterrupted working hours away from home or community. Workers saw the need for free time allowances to balance this. Thus the basis for a strong distinction between work time and free time was forged. Increases in material wealth gave the bulk of the population more free time and the purchasing power to exploit it, and, in the latter half of the 20th Century, leisure-specific industries became significant.

Furthermore, while the notion of free time is generally a useful way of defining leisure, in some situations there may be varying degrees of free choice involved in leisure. If people are tired from working long hours, their choices about how to spend their non-work time may be limited. The type and amount of leisure activities an individual undertakes are certainly limited by the economic resources at their disposal. The notion of free choice is particularly blurred for people whose leisure pursuits are an addiction (e.g. gambling and drug use).

Definitional boundaries continued

While there are likely to be some areas where boundaries are not clear cut, the Time Use Framework described later in this chapter provides guidelines as to what activities and social transactions are classified by the ABS as free time activities. These activities are predominantly those that are of interest when analysing the contribution of leisure to wellbeing.

Connection between culture and leisure

Culture and leisure clearly have much in common. Many activities are both cultural activities and leisure activities (e.g. visiting a museum). Often what separates a cultural activity from a leisure activity is simply the context in which it takes place. For instance, professional artists do not paint for leisure – for them, painting is a livelihood. On the other hand, many people paint for relaxation in their free time, and do not expect to have their work sold or hung in galleries. In other words, the same cultural activity may or may not be a leisure activity depending on purpose and context. This distinction might be thought of as a continuum, with hobby painters at one end and professional artists at the other. A similar scenario could be applied to sport, with professional sports people at one end and community or family sports activities at the other.

Culture and leisure also support and feed off one another. Subcultures often develop around leisure activities, and leisure activities such as socialising are central to broader cultural exchange and interaction. Heritage, arts and sports activities deliver a range of major leisure options to the public (e.g. movies, theatre, museums, football matches), and the significant leisure-based consumption of these products and events, in turn contributes to their continued existence.

The discussion above, although not a full survey of culture and leisure concepts and definitional issues, provides some guidelines for defining the scope of this area of concern. In its statistical operations, as outlined in the 'Frameworks' section below, the ABS focuses on a set of identifiable culture and leisure activities and on the institutions, goods, services, and events that derive from these activities. This activity-based definition is the foundation of the ABS culture and leisure classifications.

CULTURE, LEISURE AND WELLBEING

'Culture is the foundation of our progress'

World Commission on Culture and Development, UNESCO, 1996

'Increased means and increased leisure are the two civilisers of man'

Benjamin Disraeli, 1872

The culture and leisure area of concern allows us to acknowledge some inherent aspects of human nature, such as our need for identity, our creativity, history, attunement to aesthetic meaning, spirituality and our propensity for play and enjoyment. Importantly, the activities in this area do not simply add enjoyment to life — they are fundamental to human existence.¹ All human societies form spiritual belief systems, compete and play games, and express themselves artistically. Story telling and music are similarly universally and inherently human. However, culture

CULTURE, LEISURE AND WELLBEING *continued*

and leisure activities are also often distinguished by the life enhancement they provide. Thus, while artistic expression is apparent in every human made object, it is employed to add attraction and meaning to the material function of objects. Gardening and home decoration help make a house into a home. Family based culture and leisure activities, such as family outings, celebrations and play, add to the total family experience. Culture and leisure activities similarly enhance community cohesion and strength. Thus, where many endeavours in life are aimed firstly at meeting material needs, cultural and leisure activities are often aimed at meeting non-material needs.

Individual wellbeing

The behaviour of individuals is influenced at all levels by the cultural norms and preoccupations of the society in which they live. For example, young people are influenced by 'youth culture' to dress, act and talk in particular ways. Global cultural influences are increasingly impacting on the spending patterns, expectations and moral boundaries of individuals. Activities that embody or encourage cultural influences that might be said to be positive (e.g. which reaffirm social values, healthy behaviours, or positive identity) are therefore important factors in individual wellbeing. The wellbeing of individuals may also be affected where there is dissonance between different cultures they are a part of. For example, where a young person's peer culture is in conflict with their family culture, or a migrant's background culture is different to that of the country they have come to.

Involvement in the arts affords a range of wellbeing benefits, both for those involved as creators, and those involved as audience (hence the extensive use of the arts in therapy). The process of creating art, music, poetry, dance, or other art forms allows people to express joy in life, or resolve other emotions and experiences, and to communicate their world view and inspiration to others. Receiving art — such as by watching films, dance or theatre, listening to music, viewing paintings, reading poems or novels — can also be cathartic, as it again is enjoyable and can allow fundamental emotions to be explored, understood and resolved. Films, novels, opera and other story telling media reinforce historical and moral lessons and provide continuity of awareness across generations, setting people's experiences within a broader historical and cultural context. People can become socially connected through arts activities, develop skills and contribute to the cultural identity of their community.

There is much to suggest that leisure is a precursor for self-development. As well, the psychological space associated with leisure is crucial to personal wellbeing. Leisure time gives people an opportunity to recover from work and the pressures of life, to pursue other interests and to reflect on their life direction and meaning. Many leisure activities bring direct health benefits by providing relaxation and physical activity and extending social networks. Physical and creative activity are also known to enhance scholastic and academic ability. On the other hand some leisure activities have the potential to affect wellbeing negatively, and health may be optimised when an individual is able to balance passive and active leisure.

Wellbeing of society

The nature of our culture determines many aspects of social life. For instance, it determines our preferred political systems, our capacity for tolerance, and our ability to adjust to technological and historical change. Thus activities that actively analyse, develop and challenge our cultural norms are crucial to social wellbeing and sustained development. For example, the self-analysis stimulated by cultural products, such as literature or film allows us to assess our social behaviour and values. New meanings generated by arts activities help us to adjust to change and to understand our society. Cultural activities, particularly heritage activities, help to accumulate, preserve and communicate the knowledge built up by society.

Both culture and leisure support the development of social and national cohesion. Family and home based leisure is instrumental in developing cohesive family functioning. Sport and other team based activities develop people's ability to cooperate, and promote personal endeavour and local and national identification. Social and community networks are often built around arts and sports activities (e.g. craft groups, sports competitions, choirs, dance groups, book reading clubs, local cinemas). The reflections of social and individual experience found in art and other forms of culture assist groups to share and integrate their life experiences.

Finally, culture and leisure industries are recognised as growth industries, and are becoming an increasingly important sector of the Australian economy.

SOCIAL ISSUES

Culture and leisure outcomes

There is considerable interest in the individual and social outcomes generated by cultural and leisure activity, and in managing these outcomes to maximise benefits and minimise harm. Information is needed that sheds light on how culture and leisure influence wellbeing, and on which management strategies are the most effective. For example, participation in sports and active leisure is seen as a crucial element in strategies aimed at maintaining and improving the physical and mental health of Australians. Cultural and leisure activity can integrate communities in positive ways and build social capital. Cultural activities in particular are seen as a valuable forum for social examination and debate, and a means of fostering the creativity, innovation and dialogue necessary for economic development.² Culture and leisure activities may also have negative outcomes. For example, there is concern about inactivity of the Australian population, and the extent to which passive or sedentary leisure options (e.g. watching television, playing computer games) are contributing to this trend. Other leisure activities that have the potential to negatively affect the mental and/or physical health of individuals and their family and community include gambling, illicit drug use, and legal drug abuse (e.g. alcohol abuse). Activities such as graffiti and vandalism can also detract from community wellbeing.

Availability of leisure time

The United Nations Universal Declaration of Human Rights states that, "Everyone has the right to rest and leisure including reasonable limitation of working hours and periodic holidays with pay". Information on the use of time, overall and for different

Availability of leisure time continued

population groups, can allow the availability of leisure time to be monitored. Many changes that took place during the 20th Century should theoretically have resulted in an increase in the leisure time available to households (e.g. the invention of labour saving devices and other technological developments reduced the effort required to undertake many household chores, including banking and shopping). The length of the working week was reduced. The use of child care, cleaning and prepared food services increased, and people began to have fewer children, retire earlier, and live longer. However, in many households, the additional 'free' time has been filled by increased paid work responsibilities, rather than leisure time. In the last 30 years, there has been an increased rate of participation of women in the labour market, while domestic chores and child care continue to take time. Responsibility for the care of people with disabilities and the elderly has shifted from institutions to families. The availability of time for individuals to participate in culture and leisure activities therefore still needs to be monitored.

Cultural rights

The United Nations Universal Declaration of Human Rights also states that everyone has the right to freely participate in the cultural life of the community, to enjoy the arts, and to receive the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he or she is the author. While it may be assumed cultural rights are secured in Australia, ongoing social and economic change make it necessary to continuously re-assess performance against such goals. For example, the reconciliation process has emphasised that there are extant cultural rights issues relating to Indigenous people (as discussed in the 'Population groups' section below). There is increasing demand for the recognition of the custodial rights of Indigenous and other cultures over cultural objects and practices. For example, cultural artefacts that have been taken from their place of origin in the past, or misappropriated, are being reclaimed. Technological change also has implications for the rights of artists, as discussed below.

Funding, governance and policy

Culture and leisure related policy objectives tend to revolve around:

- increasing participation in culture and leisure;
- supporting equitable access to culture and leisure activity;
- ensuring freedom of cultural expression for all Australians and encouraging multiculturalism;
- developing and improving the viability of Australian culture and leisure businesses;
- preserving Australia's cultural heritage; and
- maximising funding by the private sector of culture and leisure organisations.

There is debate over what policy mechanisms most effectively achieve or support these objectives. For example, there is debate about whether the government should subsidise, legislate or provide tax incentives to achieve these policy objectives, and information is needed to determine what mix of approaches results in the best outcomes. The extent to which responsibility for funding of culture and leisure should be shared between government, communities, individuals and commercial enterprises is also of interest. Many key issues in the area of culture and leisure relate

Funding, governance and policy *continued*

to the extent to which these objectives are threatened or supported by such phenomena as technological change, globalisation, demographic change and increased tourism.

Technological change and globalisation

Technological change is seen to offer both opportunities and risks for the culture and leisure sector. For example, new media technology introduces new forms of cultural expression, but may threaten the sustainability of traditional forms of expression. As well, some traditional cultural and artistic intermediaries and supply chains (e.g. galleries and publishers) may be bypassed via new technologies such as electronic media. The rights of artists are seen to be particularly threatened by new technologies that facilitate the unlawful reproduction of materials protected by copyright. New media technologies increase options for interpersonal communication and, consequently, increase cultural networks. Information is needed about whether this will promote global cultural convergence, and thereby threaten local cultures and cultural diversity, or offer cultural opportunities, by increasing the range of cultures in which an individual can participate. In the past, policy responses aimed at preserving local cultures have included the imposition of local content rules for broadcasting media; however, new media technologies may require new community and government responses.

Demographic change

A prominent demographic change that will affect the types of culture and leisure activities in which people participate is the ageing of the Australian population. In particular, the movement of the baby boomer cohort into retirement may have implications for the culture and leisure sector. This group may precipitate changes in the nature of and demand for culture and leisure activities and related facilities, reducing audiences and patrons in some areas and increasing them in others (e.g. compared to people older than them, baby boomers attend art museums and jazz concerts, and listen to classical radio programs more often, but attend symphony concerts, opera, musicals, and theatre less often).³

Tourism

Over the last few decades greater global wealth and cheaper, more efficient travel, as well as other globalisation developments, have contributed to an increase in tourism and to growth in the Australian tourism industry. Culture and leisure are central elements of tourism, and increased tourism raises the demand for domestic culture and leisure goods and services. While this may represent a significant economic opportunity for the domestic culture and leisure sectors, this growth may need to be monitored and managed in the light of its possible impacts on the local environment and local culture.

POPULATION GROUPS

Indigenous people

The links between Indigenous culture and the wellbeing of Indigenous people are the focus of much attention in a variety of settings. There is interest in better understanding the importance of cultural and sporting activities to Indigenous communities, and whether and what support is needed to facilitate these activities within Indigenous communities. Indigenous arts are seen by many Indigenous people as being an important vehicle for personal development, regeneration and healing, and as having a uniting influence on communities. There is interest in understanding the role played by the arts in reaffirming identity, articulating social issues and sustaining cultural traditions, and also in quantifying the economic value arts activities represent for communities. The social and economic value of sports to Indigenous communities is also an area of interest. For example, as well as having physical health benefits, sport and physical activity may improve community self esteem and cohesion and reduce problems such as crime. There are many factors associated with sports that may encourage these outcomes, including the community interaction and focus afforded by regular sporting matches and carnivals, and the fact that Indigenous sporting achievers may provide positive role models for young Aboriginal and Torres Strait Islanders.

There is also a need to monitor the extent to which Indigenous people share in the benefits of Australian culture and whether they are disadvantaged in terms of access to culture and leisure opportunities. These are significant issues partly because some of Australia's key national cultural symbols derive from Indigenous culture representations.

Young people

Culture and leisure activities are seen to have a range of benefits particularly important for younger people, including the ability to foster self-esteem, improve communication and encourage social participation. Arts education is seen as essential to an 'all-round' education, purportedly promoting conceptual skills and improving problem-solving abilities. Sporting involvement is similarly seen as important to socialisation, and is central to physical development early in the life cycle. Culture and leisure are therefore seen to impact positively on pathologies evident in some of the young population, especially obesity, depression, suicide, criminal activity and drug abuse.

People with disability or illness

The physical and psychological regenerative benefits of leisure and cultural activities for clinical populations are well-documented in culture and leisure research. These benefits and the empowerment that can be developed through culture and leisure activities are considered particularly beneficial to people with a disability. Thus any difficulties experienced by people with a disability in accessing culture and leisure activity are of interest. People with disabilities may be restricted in the kinds of leisure activities they can choose to undertake. Information on the extent and nature of participation of people with a disability in culture and leisure activity can usefully inform policy in this area.⁴

Immigrants

There is interest in minimising access barriers to culture and leisure participation for immigrants and people from non-English speaking backgrounds. Information is needed to direct programs and policies aimed at supporting recently arrived immigrants in particular to retain links to their cultural background and sustain the cultural traditions of the country they have left while at the same time providing them with opportunities to engage in and learn about the cultures of Australia. Other issues for people from non-English speaking backgrounds include their representation in mainstream culture, such as theatre, television and film. This group have been found to be under-represented, and, when represented, their roles can be tokenistic or based on ethnic stereotyping.

FRAMEWORKS

The ABS is in the process of developing an information model for culture and leisure. The aim of this model will be to provide the conceptual framework necessary for identifying the coverage (and shortcomings) of existing culture and leisure datasets, for integrating these datasets, and for guiding future data developments. As well, the model will provide the basis for elaborating statistical standards and be a reference resource for anyone involved in structuring and analysing statistical information on culture and leisure. The model will aim to depict major entities in the sector (e.g. people, organisations, factors of production, goods and services), as well as the major transactions and relationships between these entities.

The range of players, industries, products, events and facilities associated with the areas of culture and leisure is diverse. Policy, research and community interest in culture and leisure is similarly diverse. However, interest can be broadly grouped into two major areas of focus for statistical measurement:

- the extent and nature of individual participation in culture and leisure and the implications of this participation (including effects on the economy); and
- the extent and nature of economic activity associated with culture and leisure, and the implications of this activity (including effects on participation).

Several systems that can be used to measure different aspects of these areas of interest are described below. The first is a participation framework (based on the person counting unit) that recognises a number of different ways individuals participate in culture and leisure. It also identifies some important inputs into culture and leisure participation and recognises that culture and leisure participation draws upon human, social, financial, cultural and natural resources and, in turn affects these resources, either positively or negatively. This framework is formative and some areas associated with culture and leisure may not be covered by it or fully realised. For instance it does not track in detail the connection between individual participation and economic activity. However, the framework will continue to evolve as work on the culture and leisure information model proceeds. It is intended therefore, to be a broad guide to framework development in this area, rather than a definitive model.

FRAMEWORKS *continued*

The ABS Time Use Framework is also described. This framework classifies time and links with the Time Use Activity Classification to provide a means for measuring time spent on leisure activities. The transactions model described in Chapter 1 is also applied to the area of culture and leisure.

Finally, the Australian Culture and Leisure Classification (ACLC), is described. This classification focuses on the economic aspect of culture and leisure and provides a detailed structure for measuring culture and leisure in terms of the industries, occupations, goods and services associated with the area. The classification is oriented towards counts of businesses, and is closely associated with the economic frameworks elaborated in the Economic Resources and Work chapters of this book. It therefore provides a strong means of analysing economic activity in the areas of culture and leisure.

A culture and leisure participation framework

Scope

The framework outlined below aims to recognise some key aspects of individual participation in any given culture or leisure activity. Broadly the framework covers participation in activities undertaken with the purpose of:

- recreation or diversion;
- artistic expression (e.g. visual, musical, written, kinaesthetic or dramatic);
- using, practising or developing sporting skills;
- generating, developing, preserving or reflecting cultural or spiritual meaning; and
- facilitating any of the above.

Participation in these activities cuts across economic and production boundaries. In other words, the framework is intended to cover participation in both paid and unpaid work in culture and leisure, as well as free time involvement in culture and leisure.

Many relevant activities display aspects of both culture and leisure or fall somewhere between culture and leisure on a continuum. For these reasons, the areas of culture and leisure are not differentiated in this framework. However, in broad terms, the framework includes participation in all leisure activities (i.e. activities undertaken in 'free time' as defined in detail in the Time Use Framework section below). It also includes participation in a range of cultural activities, such as heritage, professional arts, professional sports and religious or spiritual activities.

Heritage — As with individuals, groups generally have an interest in defining, developing and protecting their unique character (or cultural identity), and in learning from the past. For this reason we collect and preserve certain objects, events and texts we believe have cultural significance in heritage institutions such as museums, archives and libraries. Similarly, we protect buildings or places of significance, and construct memorials to commemorate events or people. Not only do heritage activities preserve cultural items, they actively help to define and create culture. They do this in two main ways. First, they select which items, from the vast array of items, places and events that figure in daily life, should be taken to 'officially'

Scope continued

represent the culture. Secondly, they often exhibit these items in such a way that their cultural significance, or individual meaning, is emphasised, extended or reinterpreted.

The arts — Another area of life focused on generating, expressing and interpreting cultural and personal meaning is the arts (i.e. visual arts, poetry, film, music, dance, drama, creative writing, and so on). One aspect of the work of many professional artists is their exploration and expression of personal and cultural symbolism. Dance, music, design, fashion and communication styles are potent carriers of cultural symbolism. They help to define and interpret the nature of our broader culture and of particular subcultures (youth culture, popular culture, Indigenous culture, etc). Finally, the arts often reflect our culture in such a way that it can be critically examined or challenged.

In the past, the arts have been associated with other interpretations of the term culture. One of these interpretations related to the idea that human nature could be refined and improved (or 'cultured' in the agricultural sense), and that particular forms of art, music and literature were instrumental in this process. This interpretation tended to elevate some artistic forms (i.e. classical music, literature and fine arts) above others. While there is some residual association of these artistic forms with elitism today, the term 'arts' has widened to embrace a range of forms of artistic expression, including forms such as graffiti, folk art, jazz and popular music. Other theoretical approaches to the arts, such as that taken by liberal humanists in the late 1800s and the ancient Greeks, have propounded the capacity of the arts to uplift and inspire the human spirit.⁵

Sports — Sports can be viewed from a cultural perspective as well as in a leisure context. One of the ways people come to understand their own culture is by contrasting it with that of others. Hence cultural diversity and multiculturalism are seen to be socially beneficial and to promote tolerance. However, as well as engendering understanding, cultural difference can give rise to antagonism and competition between groups. In many societies competition between cultures, especially locality based cultures, is expressed peacefully, or symbolically, through games, sports and other competitions. Sporting competition is often associated with overt cultural symbolism (flags, uniforms and sporting colours, national or local songs, etc.). Thus sporting activities, particularly professional sports, tend to have a stronger cultural dimension than many other aspects of life. As an example, displays of cultural identity are a significant aspect of the Olympic games.

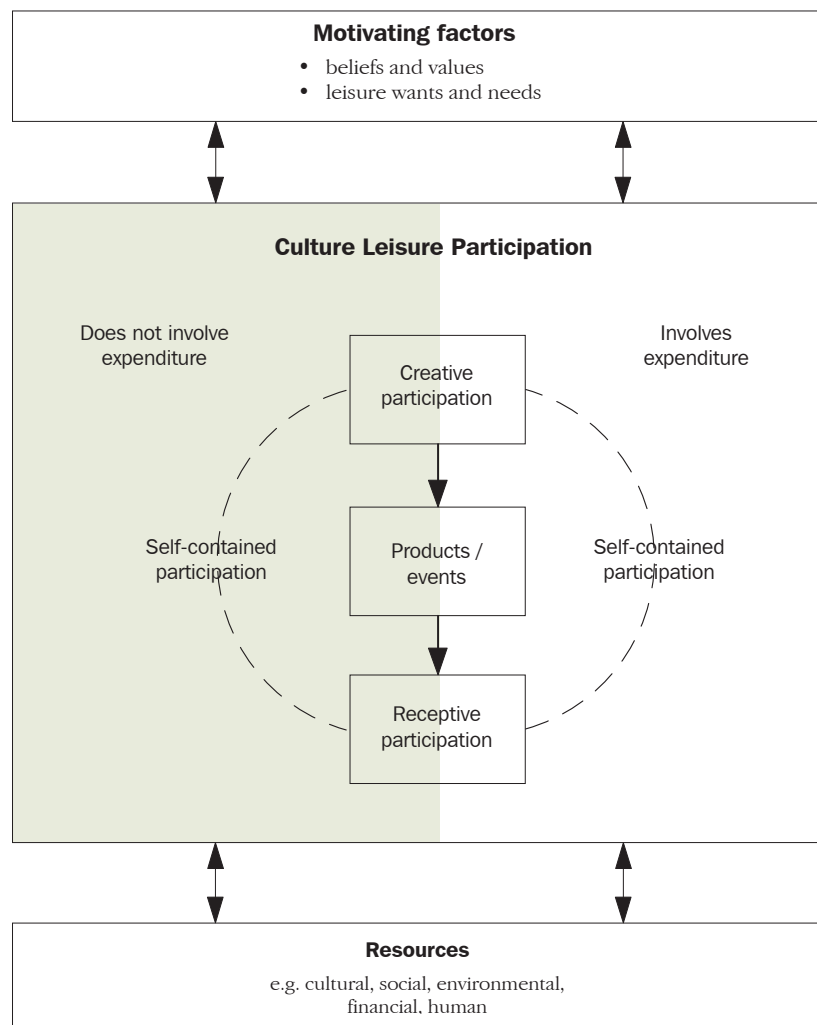
Spirituality — Religious and spiritual activity also focus on the sense of meaning we bring to life, and on exploring and perpetuating particular belief systems. Religious or spiritual rituals and ceremonies reinforce cultural and spiritual traditions and pass them on from one generation to the next. Outside organised religion, there are many rituals maintained by each generation that definitively represent or perpetuate our cultural identity, or pass on cultural lessons.

Framework overview continued

The participation framework summarised in the following diagram is focused on individuals as participants in culture and leisure activities (participants are implicit in the diagram). It recognises that culture and leisure participation arises inherently out of human society, and specifically out of the need and desire to express cultural meaning and to incorporate leisure into life. It also acknowledges that culture and leisure activities both utilise cultural and other resources, and can deliver value to these resources or detract from them in various ways. At a narrower level of focus, the framework identifies different kinds of participation in culture and leisure activities:

- creative participation (e.g. as artist, sportsperson or facilitator);
- receptive participation (e.g. as audience or purchaser); and
- self-contained participation (i.e. where the participation is simultaneously creative and receptive, e.g. going for a walk).

It acknowledges that a range of products and events arise from some forms of culture and leisure participation, and allows participation to be analysed in terms of whether or not it involves expenditure.

A CULTURE AND LEISURE PARTICIPATION FRAMEWORK

Framework overview continued

The demographic and socioeconomic characteristics of individuals as participants are clearly key variables in the analysis of participation. Other key elements of the framework, and their value to analysis are explained below.

Motivating factors

Motivating factors can include cultural factors such as belief systems and lifestyles, as well as the need and desire for free time and leisure activity. For example, spiritual belief systems give rise to worship, rituals or pilgrimage activities; the drive to articulate the lifestyles of different groups gives rise to fashion design related activities; aspects of youth subculture give rise to graffiti, which is cultural both in content and method of expression. Such contextual factors motivate people to become participants, and therefore influence the nature and extent of participation. Understanding and measuring the factors motivating individuals to participate in culture or leisure can be particularly important in developing policy to promote, decrease or support participation in different areas of culture and leisure activity.

Resources and outcomes

Resources are defined broadly in the framework to encompass the full range of cultural, human, financial, environmental, social and personal resources and capital utilised in participating in cultural and leisure activities. These resources may include the stock of artefacts held by a museum (as cultural resources) or the public parks or footpaths used by joggers.

Resources play a crucial role in supporting participation in cultural and leisure activities. For example, many cultural and leisure activities cannot occur without appropriate venues and equipment. The existence of recreation venues (e.g. gyms, theatres, art spaces) within a community can also promote and encourage community participation in cultural and leisure activities. Human resources such as those used in coaching, training, administrative support and management are also vital to supporting and encouraging culture and leisure participation. Time is a key resource, and lack of time can be a barrier to culture and leisure participation. Other barriers to participation include transport, cost, or cultural barriers. Measures of resource needs and availability, for particular population groups, can inform policy and program development aimed at encouraging and supporting participation.

Participation in culture and leisure can also have a number of important positive and negative impacts on a community's resources. Cultural and leisure participation has the capacity to generate social capital and to improve the creativity and health of the population. It also has the capacity to generate negative social effects. For example, leisure activity that is strongly associated with substance abuse or crime can impact negatively on a community's human and social resources. Negative outcomes of cultural and leisure participation represent a disinvestment in the community's resources, and may affect the sustainability of the community, of cultural and leisure participation, or of other activity within the community.

Participation in many cultural and leisure activities will simultaneously have both negative and positive impacts on resources. For instance, benefits people derive from using Australia's national parks and other wilderness areas must be weighed against

Resources and outcomes continued

the potential for these areas to be harmed, through misuse or overuse. Overuse can also damage cultural resources. For example, fragile documents, art works or artefacts can be damaged if overhandled or displayed under bright lights for long periods.

Positive and negative impacts on resources thus result in positive and negative wellbeing outcomes. Measures of the effect of cultural and leisure participation on the social and economic resources of a community can assist in evaluating the performance of culture and leisure providers and in policy development. Information about the effect of culture and leisure participation on resources can also support optimal management of all resources.

Types of participation

Self contained participation — There are many cultural and leisure activities that are simple and self contained (e.g. going for a walk, playing cards with friends). These activities are created and consumed simultaneously, and often do not involve many people or much preparation. These kinds of activities may not be associated with high levels of expenditure or particular industries, and can often be family or community based. Measures of these activities can inform policies or programs aimed at increasing participation in cultural and leisure activities and understanding levels of wellbeing in the population.

Creative/receptive participation — Many other culture and leisure activities are more complex. They involve more people, more distinct stages, and different kinds of participation. Usually they involve two main kinds of participation: labelled in this framework as 'creative' and 'receptive' participation.

- *Creative participation* — The term 'creative' is used in a pragmatic sense to indicate activity that makes a culture or leisure event happen, or creates a culture or leisure product. In other words, it does not refer to the imaginative or artistic quality of the participation. Included is participation associated with making, creating, organising, initiating, producing, facilitating and so on. Also included is intermediary, supply and enabling participation (e.g. film distribution, theatre management, curatorial activities, supportive involvement of family).
- *Receptive participation* — Again, 'receptive' is meant pragmatically to indicate participation that involves receiving (watching, purchasing, etc.) a culture or leisure event or product. Included is participation that uses, purchases or observes a culture or leisure product or event. For example, where performances, sports or television programs are watched by an audience, or art works or cultural items are observed in museums or books are purchased.

The existence of these two types of participation (creative and receptive) is perhaps most apparent with activities that involve spectators e.g. sporting matches, or theatre productions, where some people are making the event happen, while others are watching it. This distinction is also apparent for activities that give rise to culture and leisure goods. For example, a novelist writes, or creates a book; book publishers become involved in creating the final product; and the public then buys and reads that product. All these activities involve culture and leisure participation, yet are very

Types of participation continued

different in nature and are likely to have different effects and benefits for the people involved. It is thus useful to make a distinction between creative and receptive involvement in culture and leisure activity. Creators and consumers of culture and leisure events or products often have very different characteristics and needs, and their actions have different social and economic implications.

Spending on culture and leisure participation

Culture and leisure participation occurs on a widely ranging scale of formality — reaching from the very informal to the ceremonial. Activities range from a person reading a book on their own, going for a walk in a park with a friend, or playing community based sports at lunch time, to involvement in full scale theatre productions, Olympic games, and cultural events. Within this area people produce things on an intimate level (e.g. food prepared for a dinner party, or baby clothes crocheted for relatives), or for much wider public consumption (e.g. music performances, film screenings, books). Sometimes participation is clearly linked to the economy through expenditure or labour. In other cases it lies outside more conventional economic boundaries. Thus a framework of culture and leisure participation needs to cater for both simple and complex activities. Differentiating between self-contained and creative/receptive participation is one way of achieving this. Another is to acknowledge that, while many cultural and leisure activities are clearly part of the economy, there are some important cultural and leisure activities that are not. A further distinction can be made between participation that involves expenditure and participation that does not.

Involves expenditure — Expenditure occurs where people involved in culture and leisure are paid for their efforts, or have some expectation of receiving remuneration for time spent on the activity (e.g. professional artists or sportspeople, or paid administrators). Consumption of cultural or leisure events or products can also involve expenditure (e.g. where entry fees are paid to view an exhibition, or a book is purchased). Self-contained participation may require some kind of expenditure for it to occur (e.g. where bicycles are hired for a family bike ride, or a sports hall is hired for a community sporting match). In these cases cultural and leisure participation can be seen to be linked to the economy through expenditure. The Australian Culture and Leisure Classifications (ACLC) described below focuses on this economic side of cultural and leisure activity.

Does not involve expenditure — Other cultural and leisure participation does not involve expenditure, for example, playing with children, meeting friends for a social occasion, or gardening. While such activities may not be part of the economy, they are crucial to personal wellbeing.

Measures differentiating between participation that involves expenditure and participation that does not can be useful in examining issues relating to access to cultural and leisure participation or to the valuation or commercialisation of culture and leisure, and can inform research and policy in the areas of health and social capital.

Products and events

Creative culture and leisure participation, as defined above, generates products or events. Self-contained participation generates events that are simultaneously consumed.

Products— In general terms, a product is a good or a service. A good is a tangible, material item, that can exist independently of the people who produced it. Within the participation framework, goods can range from children's craft efforts to professional art works. Thus products may be cakes, jewellery, films, guitars, prints, poems, sculptures, songs, and so on. cultural and leisure services can range from those associated with events (described below) to services provided by librarians, museum curators, sports coaches, etc.

Events— An event is generated when an individual goes for a walk, watches television or plays with a pet. On a larger scale, events can include sports carnivals, matches or races, music or theatre performances, film screenings, fashion shows, etc. Although it is possible to repeat events, they can not exist independently of the people who produce them. They may be recorded on film, video, or tape, but these recordings are only representations of the event, and are in fact cultural or leisure products.

Time use framework

The ABS Time Use Framework provides a comprehensive structure that can be readily applied in the measurement of some aspects of culture and leisure. The Time Use Framework is illustrated and described in Chapter 6 — Work, and one of its chief values is the comparison it allows between different uses of time. That is, time use measures can indicate not only how time is being used, but how time is divided between particular activities, for example, leisure and work. In the case of culture and leisure, this division of time informs a key area of policy interest — the accessibility of leisure time, and the relationship between working hours (both paid and unpaid) and capacity for cultural and leisure participation.

The framework identifies four categories of time.

Necessary time — Includes activities which serve basic physiological needs such as sleeping, eating, personal care, health and hygiene.

Contracted time — Includes paid work and regular education. Activities within this category have explicit or implicit contracts which control the periods of time in which they are performed. These activities, therefore, constrain the distribution of other activities over the rest of the day.

Committed time — Describes activities to which a person has committed him/herself because of previous acts or behaviours or community participation such as having children, setting up a household, or doing voluntary work. The consequent housework, care of children, shopping or provision of help to others are committed activities. In most cases services could be bought to provide the same activity (e.g. an exchange could be made of time for money). Some activities included in this category could potentially be considered leisure activities (e.g. some people consider household activities such as gardening or making furniture to be leisure rather than duty).

Time use framework *continued*

Free time — This is the amount of time left when the previous three types of time have been taken out of a person's day. The only way to obtain more free time is for contracts and commitments to be changed or to spend less time on necessary time activities (e.g. sleep less), as the total time available in a day is constant. Within the Time Use Activity Classification, free time is further divided into categories 'social and community interaction' and 'recreation and leisure'.⁶

• *Social and community interaction* – This includes time spent visiting entertainment and cultural venues, attending sports events, religious activities, rituals or ceremonies. Some examples include attendance at:

- movies, concerts, theatres, libraries, museums, art galleries, zoos, botanic gardens, amusement parks, mass events;
- sports events and matches, and racing events;
- religious practices or events, rituals, weddings, funerals, rites of passage; and
- community events, meetings, civic ceremonies.

• *Recreation and leisure* — This includes time spent on sport and outdoor activities, games, hobbies, arts, crafts, reading, audio/visual media, attendance at recreational courses, and other free time activities (e.g. relaxing, drinking, smoking). Some examples include:

- outdoor activity, organised sport, informal sport, bushwalking, walking, fishing, holiday travel, driving for pleasure;
- playing cards and board games, crosswords, gambling, computer games, arcade games, collecting, craft work, art making, performing or making music;
- reading books, magazines, newspapers, CD-ROMs;
- watching TV or video, listening to radio, listening to tapes, CDs or records, accessing the Internet;
- personal development, do-it-yourself, art, craft, and hobby courses; and
- relaxing, resting, doing nothing, thinking, worrying, drinking alcohol, social drinking, smoking, interacting with pets, enjoying memorabilia.

Time Use Activity Classification

As described in Chapter 6, the Time Use Framework is supported by an activity classification that allows a comprehensive range of activities to be mapped according to time spent on them. The Activity Classification is a hierarchical classification, structured into three levels of detail, which describe what people do with the twenty four hours of the day. Supporting information, regarding whom the activity is done for, whom the activity is done with, and the location of the activity, further describes the way in which people use their time, and completes the Time Use Framework.

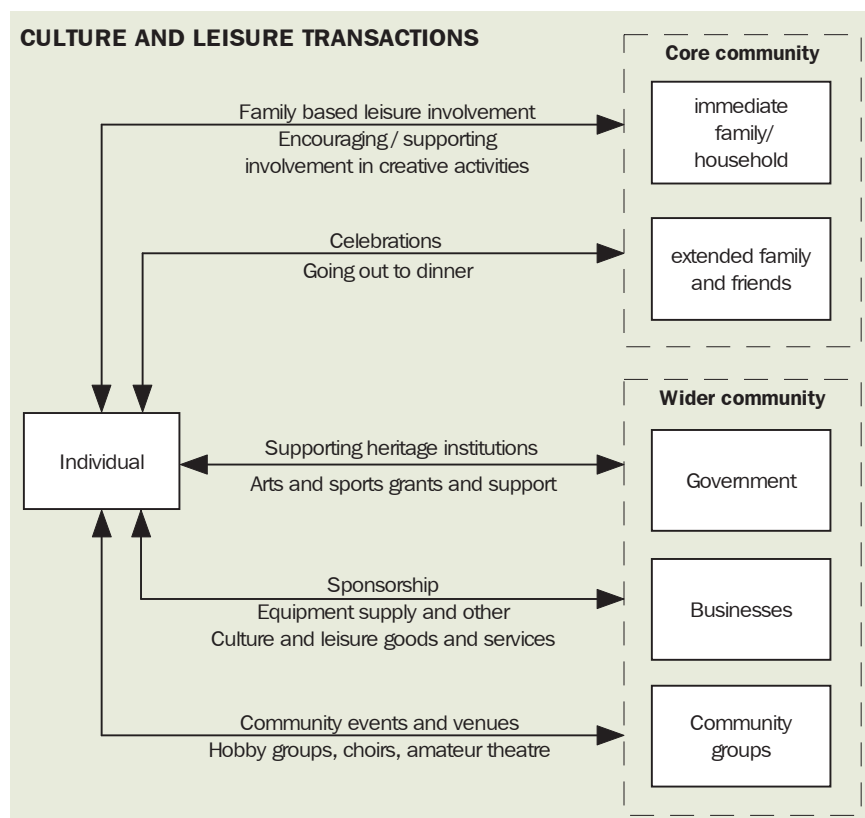
Culture and leisure transactions

Culture and leisure related transactions are undertaken on a daily basis by people seeking to enhance their own wellbeing, or that of their family or community. Some of the most important culture and leisure transactions take place within families. For example, the emotional sustenance provided by parents playing with their children, may be as important to the wellbeing of children as food. Families arrange to spend

Culture and leisure transactions *continued*

leisure time together and organise family celebrations partly in order to maintain and enhance the family ties and networks that can be called upon in times of trouble. Involvement in culture and leisure activity also allows individuals to maintain and extend their connection to the wider community, and build networks of support. Culture and leisure events are often organised specifically in order to create or enhance community cohesion.

Governments are also involved in culture and leisure transactions that influence the wellbeing of society. They put resources into establishing community venues and facilities where creative and sporting activities can take place. They also play the role of custodians of national and local cultural heritage through building and funding museums, libraries and archives, and legislating for the protection of important wilderness areas. Sporting activity is also supported by governments. When individuals make use of these facilities and take part in cultural events, they are completing the social exchange initiated by governments. Some examples of culture and leisure transactions are shown in the diagram below.



The Australian Culture and Leisure Classifications

The Australian Culture and Leisure Classifications (ACLC) comprise three components: an industry classification, an occupation classification, and a product (goods and services) classification. These classifications are outlined below. The Time Use Classification outlined above is not part of the ACLC suite of classifications as it has its own conceptual basis. The differences between the scope of the ACLC

The Australian Culture and Leisure Classifications *continued*

and the free time component of the Time Use Activity Classification are described in the ACLC publication, *Australian Culture and Leisure Classifications*, (Cat. no. 4902.0), which also provides a more detailed description of the ACLC.

Industry classification

The Industry Classification comprises industries consisting of organisations for which the main activity is the production or provision of culture and leisure goods and services. All types of business entities are included, such as commercial and subsidised organisations, government agencies, non-profit institutions and associations, individuals undertaking business activities, etc. The ACLC Industry Classification aligns, where possible, with the Australian and New Zealand Standard Industrial Classification (ANZSIC).

The ACLC Industry Classification is structured hierarchically, in a manner similar to many other classifications developed by the ABS. It has three levels of classification: divisions, groups and classes. Each class contains a definition, a list of primary activities and a list of exclusions. A summary is provided below.

AUSTRALIAN CULTURE AND LEISURE CLASSIFICATIONS

Industry Classification Summary

HERITAGE

Museums, antiques and collectibles
Environmental heritage
Libraries and archives

ARTS

Literature and print media
Performing arts
Music composition and publishing
Visual arts and crafts
Design
Broadcasting, electronic media and film
Other arts

SPORTS AND PHYSICAL RECREATION

Horse and dog racing
Sports and physical recreation venues
Sports and physical recreation services
Sports & physical recreation goods manufacturing & sales

OTHER CULTURE AND LEISURE

Gambling
Amusement industries
Hospitality
Outdoor leisure
Community and social organisations
Other culture and leisure services
Culture and leisure facilities construction
Other culture and leisure goods manufacturing and sales

Product classification

The Product Classification consists of a list of culture and leisure goods and services (together known as products). These products are the primary outputs of the industries listed in the ACLC Industry Classification; in addition, they may be also produced by other industries (for example, museum services may be provided by a business unit in the mining industry). The ACLC Product Classification fits broadly within the framework of the Australian and New Zealand Standard Product Classification (ANZSPC). The products included in the ACLC Product Classification are grouped into 26 broad groups shown below and 227 classes. A summary is provided over the page.

AUSTRALIAN CULTURE AND LEISURE CLASSIFICATIONS

Product Classification Summary

Heritage services	Live animals
Services of artists and arts education	Sports and physical recreation services
Books, magazines, newspapers and other printed matter	Equipment used in presentation of entertainment or spectator sports
Audiovisual and related services	Sports, physical recreation and camping equipment
Audio and video media	Sports and recreation vehicles
Radio and television receivers and apparatus for sound or video recording or reproduction	Amusement and leisure services n.e.c.
Information supply services	Toys and games and fairground amusements
Photographic services	Food and beverage serving services
Exposed photographic and cinematographic media, and artists works	Community services
Architecture, design and advertising services	Outdoor leisure services
Musical instruments and other performing arts equipment	Photographic equipment and supplies
Performing arts and other live entertainment presentation and promotion services	Leasing services of culture or leisure goods
	Other culture or leisure services
	Culture or leisure venues and facilities

Occupation classification

The ACLC Occupation Classification, based on the Australian Standard Classification of Occupations (ASCO), lists occupations that are predominantly culture or leisure in nature, or that are predominantly found in culture or leisure industries. Because of the way ASCO groups some occupations, the ACLC Occupation Classification includes most, but not all, jobs associated with culture and leisure. Also, while it allows for classification of 'paid jobs' and 'unpaid work', the ACLC Occupation Classification is not designed to classify participation in personal hobbies or recreation activities. The ACLC Occupation Classification contains 159 occupation classes, organised by the nine major ASCO groups. The major ASCO groups are shown opposite with some examples of ACLC occupation groups.

Key measures

Key measures used within the culture and leisure area are described below.

Participation and attendance measures — A valuable way of quantifying the extent of involvement in culture and leisure activities is by measuring either participation or attendance. Attendance can be measured for culture and leisure venues (e.g. museums, botanic gardens, libraries, music venues, theatres, and cinemas), cultural or leisure events such as festivals (e.g. of arts, crafts, music, etc.), or sports events (e.g. football, cricket, tennis, basketball and horse racing). Often both attendance and participation need to be measured in order to get a full picture of involvement. For example, people may both attend and participate in a music festival, and different personal, social and economic implications are associated with each kind of involvement. Information can be enhanced by information on frequency of attendance or participation, duration of activity, cost of involvement, and the demographic and socioeconomic characteristics of those attending or participating.

AUSTRALIAN CULTURE AND LEISURE CLASSIFICATIONS

Occupation Classification Summary

MANAGERS AND ADMINISTRATORS

Examples: artistic director, land care manager, sports administrator.

PROFESSIONALS

Examples: architect, librarian, music teacher, minister of religion, historian, sculptor, photographer, fashion designer, illustrator, radio journalist, author, singer, actor, dancer, museum/gallery curator, conservator.

ASSOCIATE PROFESSIONALS

Examples: chef, club manager, fitness centre manager, cinema manager, jockey, golfer, swimming coach, sports umpire, library technician.

TRADESPERSONS AND RELATED WORKERS

Examples: gunsmith, signwriter, horse trainer, greenkeeper, offset printer, picture framer, boat builder and repairer, sound technician, motion picture projectionist, make up artist.

ADVANCED CLERICAL AND SERVICE WORKERS

Examples: desktop publishing operator, photographer's assistant.

INTERMEDIATE CLERICAL, SALES, & SERVICE WORKERS

Examples: library assistant, bar attendant, drink waiter, fitness instructor, tour guide

INTERMEDIATE PRODUCTION AND TRANSPORT WORKERS

Examples: printing table hand, printer's assistant.

ELEMENTARY CLERICAL, SALES AND SERVICE WORKERS

Examples: bookmaker's clerk, ticket collector/usher, vending machine attendant

Key measures *continued*

Work measures — Quantifying the amount and value of work done in the culture and leisure sectors provides a valuable perspective on the contribution of culture and leisure to the community and economy and can highlight areas where support may be needed. There are some issues involved in providing comprehensive measures of work in this area. A certain proportion of people working in this sector work unpaid (e.g. where time and effort is volunteered for a community theatre production), or with the expectation of payment that may or may not be realised (e.g. where an author writes with the expectation of having their work published, but with no guarantee). This work will thus not necessarily be recognised in income estimates, or information about paid work. Where people do have paid employment in the sector, this may not be their main job in terms of income generation, and sources that do not collect data about second jobs may underestimate the extent of employment in the sector.

Time use measures — Time use surveys record the average time spent during the day (in hours/minutes) on a range of activities which, when taken together account for the full twenty four hours (see also the Time Use Framework described above).

Expenditure and output measures — Private and public expenditure on culture and leisure goods, services and activities is a key measure in evaluating developments. Typical areas of expenditure measurement include the extent to which cultural and leisure activities are funded by governments and businesses through donations or sponsorships; household expenditure on culture and leisure; and the income and expenditure of organisations providing culture and leisure goods and services to people. The ABS classification of expenditure items used in the Household Expenditure Survey includes expenditure on culture and leisure goods and services. Measures of the type and number of culture and leisure items produced by particular individuals or industries, and the value of items, can provide useful indicators of the

Key measures continued

output of the culture and leisure sectors. Measures of items purchased, and explanatory information about where and by whom they were purchased, can similarly provide information to those wishing to understand trends in the sector.

Other measures — Collections in the culture and leisure area have, at various times adopted a range of lists in the production of outputs including lists of types of sports and physical activities people participate in, selected cultural venues people visit, and type of sporting involvement (e.g. as player or participant, coach, referee, committee member, etc.).

DATA SOURCES

Until the 1990s, culture and leisure statistics in Australia were relatively fragmented, with data being collected by a variety of organisations on an ad hoc basis and for specific purposes. In the 1990s, the ABS established a National Centre for Culture and Recreation Statistics and strengthened focus on culture and recreation data. This has resulted in a more coordinated approach to data collection. Several culture/leisure surveys are now repeated on a regular basis to enable time series analysis.

Censuses of Population and Housing (ABS)

The five-yearly Census provides information on the sociodemographic characteristics, hours worked, educational attainment and income of individuals whose main occupation is culture or leisure related or who work in culture or leisure industries. The culture and leisure sector comprises a variety of specialist occupations and industries in which only a small number of people are involved as their main job. For this reason, a fine level of detail for specific culture and leisure occupations and industries is often only possible from a census of the population. However, the Census also has limitations. The sector is characterised by a large number of people who supplement their culture and leisure work with other paid employment or who work in the sector without financial reward. The Census does not collect information on second jobs or on people who work without pay; the size of the culture/leisure sector is therefore potentially underestimated.

Survey of Work in Selected Culture and Leisure Activities (ABS)

This survey has been conducted in 1993, 1997 and 2001 and collects information on both the cultural work and sporting involvement of individuals over a 12-month period. The survey collects details of the types of cultural activities people undertake and the role they play (e.g. as a player, coach or official) in the sports and physical activities in which they participate. Importantly, the survey collects details on *all* involvement people have in culture and leisure activities, whether paid or unpaid.

Survey of Attendance at Selected Culture and Leisure Venues (ABS)

This survey was conducted in 1991, 1995 and 1999 and collects data on attendance at selected cultural venues (e.g. museums, botanic gardens, libraries, music concerts, theatre, opera and cinema) and at sports events (e.g. football, cricket, tennis, basketball and horse-racing) over a 12-month period. The survey provides the demographic characteristics of attendees and obtains details on the number of times a nominated cultural venue or event is attended by each individual.

Survey of Attendance at Festivals (ABS)

This survey was conducted in 1995–96 and collected information on attendance at art and cultural festivals over a 12-month period. The survey provides information on the demographic characteristics of people who attend festivals, the types of festivals attended, the amount of money spent at festivals and whether attendees travelled from interstate to attend.

Survey of Children's Participation in Cultural and Leisure Activities (ABS)

Collected for the first time in April 2000, this survey obtains data on participation over a 12-month period in selected culture and leisure activities by Australian children aged 5 to 14 years. The survey helps fill a gap in the data available on participation in culture and leisure activities which, in the past, has been limited to those aged 15 years and over. The survey collects information about involvement in:

- cultural activities such as singing, dancing and drama
- organised sport
- selected leisure activities (e.g. skateboarding, bike riding, watching TV)
- computer activities (e.g. accessing the Internet, using a computer)

The survey provides details on the characteristics of children who participated in these activities as well as the frequency and duration of their participation.

Survey of Participation in Sport and Physical Activities (ABS)

This survey was funded by users and run by the ABS. It was first conducted in August 1993 and continued on a quarterly basis until November 2000. It collected details about persons who participated in sport and physical activities in the previous 12 months. Information was collected about the type of sport and physical activities undertaken, the frequency of participation, whether the activities were organised by a club or association, and whether the person was a member of the club or association.

Survey of Public Attitudes to the Arts (ABS)

A national survey in 1997 collected information on the public's opinion about the arts. Data included the perceived importance of cultural venues and support for government funding. The survey was similar to surveys previously conducted for the Australia Council in 1989, 1992 and 1994.

Arts and Craft Purchases (ABS)

A national survey in 1997 collected information on the purchase of hand made art and craft items in Australia. The survey collected data on the types of items purchased, whether they were Australian made, where they were purchased and their cost.

Time Survey Use (ABS)

This survey has been conducted twice, in 1992 and 1997, and is expected to be conducted again in 2005–06. It collects information about the way people allocate time to different kinds of activities. It shows the daily activity patterns of people and so establishes a time use profile of Australians. Of particular interest to the culture and leisure sector is the amount of free time people have and how it is allocated. The survey allows a measure of the time spent on a variety of recreation and leisure activities as well as a measure of time spent on social and community interaction.

Service Industry Surveys (ABS)

The ABS regularly conducts industry surveys which collect data on the economic activities of businesses in the culture and recreation sector, thus extending coverage of culture and leisure issues beyond those related to individuals' involvement. Included in these industry surveys are data on the income, expenses and number of people employed by the businesses as well as details on specific aspects of business operations.

Cultural industries — Surveys have been conducted covering the cultural industries for the reference years 1993–94, 1996–97 and 1999–2000. Businesses or government institutions involved in the operations of libraries, museums, zoological and botanic gardens, television services, commercial art galleries or performing arts venues and those undertaking film production, film distribution and motion picture exhibition have all been the subject of these surveys at various times.

Sport and recreation industries — Surveys on sport and recreation industries have been conducted for reference years 1994–95 and 1997–98 and will be updated for 2000–01. Businesses or government institutions involved in the operations of sports and services to sport, sports grounds and facilities, gambling, hospitality clubs, pubs, taverns and bars and other recreation services have been included in the surveys.

Book Publishers Survey (ABS)

This ABS business survey has been conducted in 1994, 1995–96, 1997–98 and 1999–2000, and is expected to be conducted annually till 2004–05. It collects economic statistics about the book publishing industry. The collection consists of all public and private businesses in Australia employing staff and which have a predominant activity of book publishing. However, the survey excludes those businesses whose predominant activity is magazine publishing or book distribution. Similar to other economic surveys conducted by the ABS, the survey collects data on the income, expenses and employment of businesses as well as details on specific aspects of book publishing operations such as the number and value of books sold.

Business Sponsorship Survey (ABS)

This ABS business survey collects statistics about corporate sponsorship of the arts, cultural and sporting activities in Australia. First conducted in 1993–94, the survey was repeated in 1996–97 and will be updated for 2000–01. The survey includes information on business attitudes to sponsorship and the value of sponsorship, the type of industries which sponsor and the types of activities which are sponsored.

Cultural Funding (ABS)

Estimates of cultural funding by Commonwealth, State and Territory and Local Government authorities are obtained from a number of sources including the authorities themselves, annual reports, budget papers and data collections conducted by the ABS. The data was first collated in 1993–94 and then annually since 1995–96. Information is available by type of activity funded (e.g. libraries, museums, art galleries, radio and television broadcasting, public halls and civic centres), and on whether funding is for capital or recurrent projects.

International Visitors Survey

The Bureau of Tourism Research conducts ongoing surveys of tourists through their *International Visitor Surveys* and *National Visitor Surveys*. The International Visitors Survey draws on personal interviews with 20,000 overseas visitors who depart from major Australian airports. The survey was first conducted in 1969 and has been conducted intermittently until becoming an annual collection in 1988. The survey collects information on the profile of visitors, the factors influencing their decision to come to Australia, the types of activities they undertake while in Australia, their main purpose for visiting and their expenditure. It is possible to isolate selected cultural activities allowing some measure of cultural tourism. A series of questions were included in the survey in 1996 which provided a greater cultural tourism focus.

National Visitors Survey

The National Visitors Survey (Bureau of Tourism Research) has been conducted since 1998 (prior to that domestic tourism was monitored by the Bureau of Tourism Research, but data is not comparable due to methodological differences). It involves obtaining data from around 80,000 Australian residents annually on their recent travel. Details are collected on the reasons for travelling and activities undertaken while away from home. Data is available on specific cultural activities undertaken.

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