Australia’s welfare 2019: data insights presents an overview of the welfare data landscape and explores selected welfare topics—including intergenerational disadvantage, income support, future of work, disability services, elder abuse and child wellbeing—in 8 original articles.

Australia’s welfare 2019 is the 14th biennial welfare report of the Australian Institute of Health and Welfare. This edition introduces a new format and expanded product suite:

- Australia’s welfare 2019: data insights
- Australia’s welfare snapshots
- Australia’s welfare 2019: in brief
- Australia’s welfare indicators
The Hon Greg Hunt MP  
Minister for Health  
Parliament House  
Canberra ACT 2600

Dear Minister

On behalf of the Board of the Australian Institute of Health and Welfare, I am pleased to present to you Australia’s welfare 2019, as required under Subsection 31(1A) of the Australian Institute of Health and Welfare Act 1987.

This edition continues the AIHW tradition of delivering high quality evidence and value-added analysis on welfare in Australia, and it introduces a new multi-format report. It provides comprehensive coverage of topics in statistical snapshots (online) and explores new insights into topical issues in narrative articles (print). It discusses the welfare data landscape and how future data could better meet the needs of policymakers, service providers, researchers and the public.

I commend this report to you as a significant contribution to national information on welfare-related issues, and to the development and evaluation of welfare policies and programs in Australia.

Yours sincerely

Mrs Louise Markus  
Chair  
AIHW Board  
21 August 2019
About Australia’s welfare 2019

This edition of the AIHW’s biennial flagship report on welfare introduces a new format and an expanded product suite:

• **Australia’s welfare 2019: data insights** is a collection of articles on selected welfare topics, including an overview of the welfare data landscape, and contributions by academic experts. It is available as a print report and online as a PDF.

• **Australia’s welfare snapshots** are 41 web pages that present key facts on housing, education and skills, employment and work, income and finance: government payments, social support, justice and safety, and Indigenous Australians. They are available online in HTML (updated when new data are available) and as a compiled PDF.

• **Australia’s welfare 2019: in brief** presents key findings and concepts from the snapshots to tell the story of welfare in Australia. It is available as a print report and online as a PDF.

• **Australia’s welfare indicators** is an interactive data visualisation tool that measures welfare system performance, individual and household determinants and the nation’s wellbeing. It is available online in HTML.

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Preface

Australia’s welfare 2019 marks the 14th biennial flagship report on welfare that the Australian Institute of Health and Welfare (AIHW) has released since 1993.

The AIHW’s flagship reports, Australia’s health and Australia’s welfare, are highly regarded—by policymakers, service providers, researchers and the public—as sources of independent, authoritative and accessible information. They are compiled from multiple data sources and explore different perspectives on topical issues. They also serve as ‘report cards’ on the health and welfare of Australians by looking at how we are faring as a nation.

Australia’s health and Australia’s welfare are a mix of short statistical updates (snapshots) and longer discussions on selected topics (articles). Snapshots and articles have traditionally been packaged together in a large print publication. Since the first editions were published 3 decades ago, the methods of communication and the information technology environment have undergone rapid change. The AIHW has also grown and diversified its reporting and data offerings in this time. Given this, there was a need to modernise our flagship reports to meet the evolving expectations of our audience.

Australia’s welfare 2019 introduces a new multi-format report consisting of a comprehensive web presence (Australia’s welfare snapshots) and a leaner print publication (Australia’s welfare 2019: data insights)—see About Australia’s welfare 2019 box. The new format is consistent with global moves away from large print publications towards more diverse, layered and accessible formats. Our international partners, like the World Health Organization and the Organisation for Economic Co-operation and Development, and other Australian government agencies that produce similar reports have all moved in this direction. The new format enables more timely release of data and increases the amount of information we can make available in our flagship reports, though accessible formats.

The new print publication—Australia’s welfare 2019: data insights—contains original articles on selected welfare issues and presents an overview of the welfare data landscape. The overview chapter draws on the Australia’s welfare indicators and discusses the current state of welfare data. The subsequent chapters explore topics ranging from intergenerational disadvantage, income support, future of work, disability services, elder abuse and child wellbeing.
Australia's welfare 2019: data insights includes 4 articles authored by academic experts and an article contributed by the Australian Government Department of Employment, Skills, Small and Family Business. I extend my thanks to these authors for their valuable contributions.

The common theme across all the articles in data insights is that data are essential to understanding how people engage with and navigate welfare services, and that public data should be used for public good, while protecting privacy.

Australia's welfare snapshots complement the articles in data insights. Snapshots are new content pages on the AIHW website developed for our flagship reports. They present essential information on a range of topics—showcasing AIHW data and other sources—together with interactive visualisations and links to related reports and data products. The 41 new snapshots are organised using the AIHW’s people-centred data model. This model demonstrates how different areas interact and contribute to a person’s welfare. Australia’s welfare snapshots are available at www.aihw.gov.au/australias-welfare/snapshots.

For those who want less detail: Australia’s welfare snapshots are accompanied by Australia’s welfare 2019: in brief, a printed publication that summaries the key concepts and findings from the 41 snapshots.

For those who want more detail: This edition of Australia’s welfare includes, for the first time, dedicated online reporting of Australia’s welfare indicators in an interactive data visualisation tool. Australia’s welfare indicators are available at www.aihw.gov.au/reports-data/indicators/australias-welfare-indicators.

I would like to thank everyone involved in producing this report and acknowledge the valuable advice provided by the many experts who reviewed draft material.

The new format and expanded product suite for Australia’s welfare 2019 showcases the AIHW’s commitment to its 5 strategic goals—to be leaders in health and welfare data; drivers of data improvements; expert sources of value-added analysis; champions of open and accessible data and information; and trusted strategic partners.

We are committed to improving the usefulness and relevance of our flagship reports and welcome your feedback via flagships@aihw.gov.au.

Barry Sandison
CEO
List of Australia’s welfare snapshots


Welfare in Australia
Health and welfare links
International comparisons of welfare data
Understanding welfare and wellbeing
Welfare expenditure
Welfare workforce

Housing
Home ownership and housing tenure
Homelessness and homelessness services
Housing affordability
Housing assistance

Education and skills
Apprenticeships and traineeships
Childcare and early childhood education
Higher education and vocational education
School student engagement and performance
Secondary education: school retention and completion
Transition to primary school

Employment and work
Employment services
Employment trends
The experience of employment
Volunteers
Income and finance: government payments
- Disability Support Pension and Carer Payment
- Family assistance payments
- Income support payments for older people
- Unemployment and parenting income support payments

Social support
- Aged care
- Informal carers
- Social isolation and loneliness
- Supporting people with disability

Justice and safety
- Adoptions
- Adult prisoners
- Child protection
- Family, domestic and sexual violence
- Youth justice

Indigenous Australians
- Aged care for Indigenous Australians
- Disability support for Indigenous Australians
- Indigenous community safety
- Indigenous education and skills
- Indigenous employment
- Indigenous housing
- Indigenous income and finance
- Profile of Indigenous Australians
- Understanding Indigenous welfare and wellbeing
List of Australia’s welfare indicators

Australia’s welfare indicators can be viewed at

Wellbeing

- Purchasing power
- Income inequality
- Employment to population ratio
- Employees working 50 hours or more
- Non-school qualification
- Disability-free life expectancy
- Life satisfaction
- Crime victimisation
- Perceptions of safety in the community
- Level of generalised trust
- Voter enrolment
- Air quality
- Greenhouse gas emissions

Determinants of wellbeing

- Household income
- Access to emergency funds
- Psychological resilience
- Functional status
- Family cohesion
- Partner violence
- Social connectedness
- Adults who volunteer
- Internet access
- School readiness
- Year 12 attainment
Welfare system
Homelessness
Lower income rental households in housing stress
Indigenous households living in overcrowded conditions
Labour force participation for people with disability
Social participation for people with disability
Jobless families
Long-term unemployment ratio
Youth unemployment rate
Older people with care needs supported
Social housing allocations
Unmet need for homelessness services
Satisfaction with services
Job seekers off benefits after participation in employment services
Repeat periods of homelessness

Other sectors and contextual factors
Access to primary care practitioners
Young people not in education, employment or training
Emergency services response time
Projected population size and growth
Projected population ageing and dependency ratio
Overseas born population
Housing tenure
Government welfare expenditure
Economic conditions
Summary

Welfare is a concept that extends beyond support payments and services—it encompasses the broad range of individual, social, political and environmental factors that can influence a person's wellbeing. We need accurate, reliable data if we are to understand how these factors interact. The AIHW understands welfare as a concept that extends beyond the welfare systems, and one that affects wellbeing as illustrated by the diagram below.

As the characteristics of the Australian population change, understanding current and emerging societal shifts behind this change is crucial to appropriately and effectively deliver health and welfare services. Data are essential to understand how people engage with and navigate welfare services, and are useful for planning, implementing and delivering services. The ability to link data across different services helps in understanding pathways and relationships between health and welfare.

In the current data landscape there is an increased recognition of the importance of using data to improve outcomes for the population, while assuring privacy and security of data. The AIHW has a pivotal role in producing and reporting data to improve the wellbeing of Australians and, where possible, investigate the interrelationships.

The AIHW also compares outcomes for different population groups, including Aboriginal and Torres Strait Islander Australians, people living in remote areas, older people, people with disability, people with mental illness, children in the child protection and justice systems, and prisoners.
However, gaps exist where there are no national data currently available or where data collected are not comprehensive. In the context of welfare data, there are gaps in some areas, including:

- measurement of demand for welfare services—for example, unmet demand for specific welfare services, people who ‘fall through the cracks’ in the welfare systems
- details about types of welfare services accessed—for example, supports provided under consumer-directed care models for aged care, services funded by non-government organisations
- pathways through the welfare systems—for example, referral pathways, how people transition between different services and across different ‘systems’
- outcomes for people who receive welfare services—for example, outcomes of aged care, the relationship between recidivism and social assistance.

A key focus of the AIHW is to fill data gaps related to health and welfare—working with data providers to enhance existing collections or create new ones. For example, the AIHW is using a longitudinal researchable database on income support payments and characteristics to examine the long-term welfare outcomes and transitions for vulnerable and disadvantaged groups.

This report highlights some interesting discussions and analyses across different areas of welfare in Australia. It also draws attention to areas where data and its use can be improved. The articles in the report illustrate that it is not just about having the data, but what is done with the data and how it can be used to improve health and welfare services to individuals, families and communities and achieve better outcomes.

An overview of Australia’s welfare (Chapter 1)
How are we faring?

Australia’s welfare indicators summarise the performance of welfare services, track individual and household determinants of the need for welfare support, and provide insights into the nation’s wellbeing more broadly.

Based on trends over 10 years, Australia is doing well in a number of areas:

• The proportion of people aged 20–24 who completed Year 12 or a non-school qualification rose from less than 85% in 2009 to 90% in 2018.

• Many crime rates fell between 2008–09 and 2017–18, including:
  – the proportion of people who experienced physical assault (from 3.1% to 2.4%)
  – the proportion of households that experienced malicious property damage (from 11% to 5.1%).

• Between 2006 and 2016, the proportion of Indigenous households that were overcrowded (that is, require 1 or more extra bedrooms) fell from 14% to 10%.

We are not doing as well in a number of other areas:

• More low-income rental households are in housing stress. In 2017-18, 43% of these households spent more than 30% of their gross income on housing costs, up from 35% in 2007–08.

• In 2018, 25% of unemployed people aged 15 and over had been looking for work for more than a year—up from 15% in 2009.

• In 2017–18, 5.2% of homelessness services clients experienced homelessness more than once within the reporting year—up from 4.2% in 2013–14.

* An overview of Australia’s welfare *(Chapter 1)
Disadvantage can extend from one generation to the next

A lack of social mobility (a shift in a person’s socioeconomic position) imposes costs on society, including the squandering of people’s talents, and undermining productivity and economic growth. Social mobility is likely lower in Australia than in some developed countries (mainly Scandinavian and Nordic countries) and higher than in others (most notably the United States).

Research and data on the passing of disadvantage (and advantage) from one generation to the next is important for developing a better understanding of how social mobility operates in Australia. This includes examining intergenerational disadvantage through the lens of earnings and welfare receipt.

• How much a parent earns can influence how much their children will earn when they enter the workforce. Greater persistence in earnings across generations can result in less social mobility, and tie children’s socioeconomic position to that of their parents’.
• Intergenerational welfare receipt is a broad marker of intergenerational disadvantage, and reflects not only a lack of income, but also low levels of wealth, poor health, inadequate housing and limited aspirations.
• Findings from several studies examining earnings and welfare receipt across generations show that Australian parents pass some part of their social and economic position on to their children.
• The emerging Australian evidence hints at key pathways through which intergenerational disadvantage may be occurring—for example, family structure, parental disability and labour supply decisions. However, the focus of further inquiry will be driven by available data.
• Longitudinal studies and administrative data help in understanding social mobility in Australia, but investigating intergenerational disadvantage is challenging and data intensive—having access to richer and more varied data sources would provide a deeper understanding of intergenerational disadvantage.
• Families, labour markets, public policy and the broader national context shape the extent to which children’s opportunities and outcomes depend on their family background.
• It is important move beyond benchmarking exercises, and to translate Australian evidence on intergenerational disadvantage into effective policy design.

Intergenerational transmission of disadvantage in Australia (Chapter 2)
Fewer people receiving income support payments, but those who do are often long-term recipients

Australia’s social security system aims to support people who cannot fully support themselves through income support payments and other services. It is an important part of the larger network of services and assistance provided by governments and non-government organisations to improve the wellbeing of Australians.

• Over the past 2 decades, there has been a notable fall in the number of people aged 18–64 receiving income support—down from 2.6 million in 1999 to 2.3 million in 2018. Put another way, in 1999, 22% of Australians aged 18–64 received income support, but this fell to 15% in 2018.

• In 2018, almost 3 in 4 income support recipients aged 18–64 had been on a payment for 2 or more years. For people aged 25–49 who were receiving income support payments in 2009 analysis shows that long-term receipt of payments is common—more than half (56%) of these people were receiving payments 9 years earlier in 2000, and almost two-thirds (64%) were receiving payments 9 years later in 2018.

• People receiving Disability Support Pension, Carer Payment or parenting payments tend to be long-term income support recipients. While people receiving unemployment payments tend to stay on the payment for relatively short periods, there are some people who stay on the payment for longer periods.

• The types of payments received have changed considerably over the past 2 decades. There has been a rise in the proportion of income support recipients receiving unemployment payments, Disability Support Pension and Carer Payment, and a fall in those receiving parenting payments. This pattern has been particularly notable among women, and often is related to policy changes regarding parenting payments, Age Pension eligibility and closure of various partner payments and allowances.

Income support over the past 20 years (Chapter 3)
Income support receipt and reliance varies among Indigenous Australians

Around half of Aboriginal and Torres Strait Islander Australians aged 15–64 received an income support payment in 2016. By looking at long-term patterns—including people’s movements on and off income support, and across different payment types—the analysis provides new insights into Indigenous Australians’ receipt of income support, including whether people can be considered ‘reliant’ on these payments.

• The proportion of Indigenous Australians aged 15–64 receiving income support payments fell from 50% in 2002 to 47% in 2007, and then increased to more than 51% in 2016.

• In 2016, income support receipt was lowest in Major cities (45%) and highest in Remote and very remote areas (56%).

• Indigenous Australians aged 20–39 were the most likely to be receiving income support payments—around 60% of Indigenous people in this age group were receiving income support payments, compared with 26% of 15–19 year olds and 48% of 55–59 year olds.

• Means and asset testing can reduce the amount of payment received. Income support reliance measures the proportion of the maximum payment received over a particular period. In 2016, more than half (56%) of Indigenous Australians on income support received 90%-100% of the maximum payment, up from 45% in 2002.

• Pathway analysis of data followed a cohort of Indigenous Australians who received income support payments in 2002 over a 15-year period to 2016. Almost 1 in 5 (19%) of the 2002 cohort had left income support by 2014 and not returned by the end of 2016.

Income support among working-age Indigenous Australians (Chapter 4)
The changing nature of jobs is a key challenge for Australian workers

The Australian economy is responding to an ageing population and a shift towards service industries. Increasing automation in jobs across a range of industries may have further implications for the future of work. In a changing economy it is critical to understand which skills can lead to greater employment opportunities. Analysis of the skills involved in current Australian jobs and how these are changing over time provides valuable information for future change and may help to minimise skills gaps.

Estimates of the potential impacts of automation on employment vary widely, with a number of studies producing different predictions. While some jobs may be lost to automation, other jobs will be created, and a key challenge for current and future workers is to be flexible and able to acquire new skills as tasks within jobs change. This points to the need for planning, financing and delivering reskilling and job-transition programs.

- Occupations projected to grow in the 5 years to 2023 include Professionals, and Community and personal service workers. Occupations projected to decline include Contract, program and project administrators; Secretaries; Personal assistants; Information officers; and Bank workers.
- According to an Organisation for Economic Co-operation and Development (OECD) study, 70% of retrenched workers regain employment within 1 year, and 80% within 2 years. Women, older workers, less-educated workers and casual and part-time workers have a significantly lower chance of finding new employment within 2 years.
- In Australia, the OECD found that 10.6% of jobs are at high risk of automation and a further 25% may change substantially in the way work is done, suggesting that ‘job change’ will be as important in managing the workforce impacts of automation as ‘job loss’.
- Analysis of the amount of time workers spend on different tasks shows that, on average, Australian jobs experienced 9.3% change between 2011 and 2016. Higher skilled occupations, middle-aged workers and urban workers are experiencing greater task change than other groups. Occupations with the least task change are most susceptible to redundancy and business failure.
- In addition to changing jobs, new technology is creating new jobs—some of these result from combining tools and techniques from across different industries in novel ways, creating new fields of expertise, as well as hybrid jobs.
- The Department of Employment, Skills, Small and Family Business is developing tools to make it easier for Australians to identify their skills and see how they transfer across occupations.

*The future of work: using skills data for better job outcomes* (Chapter 5)
Inclusion and choice are central to social and policy changes for people with disability

The history of disability services and statistics in Australia is marked by a collaborative interplay of ideas, national policy development and national data. Reflecting on these practices is important at a time of significant change in the disability services and data landscape.

The thinking about disability and attitudes towards people with disability have changed since the early 20th century in many parts of the world. In Australia, there was a growing recognition of the needs of war veterans and people injured in industrial accidents, with a related querying of the previous institutional and charity models of service. By the end of World War 2, support for people with disability was increasingly accepted as a social responsibility. Current disability policy focuses on social and economic participation outcomes, inclusion and choice.

• Ideas about disability itself and about the nature of appropriate supports have been driven chiefly by the efforts of people with disabilities and their advocates and families, which have been strengthened by international advocacy and the work of organisations such as the United Nations.

• With changes to policies and service provision in Australia, national data collections have been developed in collaboration with those driving and implementing change. In turn, improved data and statistics have enabled policies to be reviewed, refined and improved.

• Support services for people with disability in Australia have evolved over time, culminating in the introduction of the National Disability Insurance Scheme (NDIS) in 2013. The NDIS replaced a system that had been framed around service ‘types’ and service providers as grant recipients, with one that considers individual needs of people with disability.

• The NDIS has the potential to improve our understanding about disability in Australia and the related support needs, how they are met and with what outcome. However, there is a need for improved data collection on the rapidly growing disability support industry and workforce, and for improved data about the experiences of the large group of people with disability who are not NDIS participants.

• As the funding of disability supports by the community is rapidly increasing, it is vital to report statistics and performance information that contribute to a broad picture of people with disability and their supports—not only the NDIS, but also from other services including health, education and aged care.

• There are opportunities to improve national statistics about the experience of people with disability. For example, the development of data integration agencies provides greater capacity to bring data together, under well-established data protection and ethics arrangements, to describe and understand the situation of people with disability.

Disability services and statistics: past, present and future (Chapter 6)
Elder abuse is estimated to affect up to 1 in 7 older Australians

Elder abuse can be understood as harm or distress caused to an older person within a relationship that has an expectation of trust. The most common forms of elder abuse are financial, psychological, physical, sexual, and social abuse, as well as neglect. There have not been any large-scale studies into the prevalence of elder abuse in Australia, but preparation for a national prevalence study is currently underway.

As elder abuse crosses many aspects of our community, strategies to address the issue will need involvement from all jurisdictions, as well as the mental health, housing, banking and aged care sectors. To support this, Australia needs better data so policymakers understand the scale of the problem, key patterns and trends.

- A paper by the Australian Institute of Family Studies estimates elder abuse affects between 2% and 14% of older Australians, and can occur within families, or within formal care environments (such as aged care). People with dementia are particularly vulnerable to abuse.

- Elder abuse (especially neglect) often goes undetected, and it is critical to develop common legal understandings of what constitutes elder abuse and how to recognise it.

- There is a lot of variation in how different cultural groups respond to elder abuse. In Australia, there is limited research about elder abuse among culturally and linguistically diverse groups and Aboriginal and Torres Strait Islander communities, but there is some evidence to suggest that they are particularly vulnerable to financial abuse.

- More evidence is needed to know what works to prevent or stop elder abuse. However, family mediation, as well as multidisciplinary approaches (involving counselling, legal interventions, medical care and financial controls) show promise.

- A national plan was launched in March 2019 setting out the priority areas for action by all governments over the next 4 years, including strengthening service responses, helping people better plan for their future and strengthening safeguards for vulnerable people.

*Elder abuse: context, concepts and challenges* (Chapter 7)
There is value in using data linkage for public good

Over the past decade there has been a large increase in the use of administrative data in academic and policy research. More recently governments have invested in using data to inform policy and service delivery decisions. Demonstrating public good in the use of public data builds broad community support for use of linked administrative data by government and researchers.

The South Australian Early Childhood Data Project (SA ECDP) is able to track children’s health and welfare from before birth into early adulthood, and is one of the most comprehensive linked data resources in Australia. The SA ECDP holds linked de-identified administrative data for about 450,000 South Australian children born from 1991 onwards, and their parents and carers. Three case studies illustrate the value of data linkage.

• **Case study 1**: Linked child protection data were used to investigate a public health approach to child maltreatment. The research demonstrated that 1 in 4 (25%) children were notified to child protection, 1 in 20 (5%) were substantiated and 1 in 50 (2%) experienced some form of out-of-home care at least once by age 10. To put this into a health context, the cumulative incidence of contact with the child protection system is about 2.5 times that of asthma with the health system, the most common chronic health condition experienced by Australian children. The research also showed children who experienced out-of-home care were almost 3 times more likely to be developmentally vulnerable on school entry than children with no child protection contact. The scale of the contact that young children have with child protection illustrates the public health importance of effective treatment and prevention.

• **Case study 2**: Linked child protection, perinatal and births registration data were used to explore outcomes for young mothers and parents. Rather than age alone, the risk of poor outcomes increases with the convergence of personal, social and economic disadvantages that are more likely to occur with young maternal age. Most young mothers in South Australia do not have children placed in out-of-home care, but more than half of the children who experience out-of-home care were born to a mother who was young when she had her first child. The research showed that there should be a focus on young parents, not just young mothers, as 70% of mothers aged under 20 at their first birth had partners aged under 25. This research is feeding into a whole-of-government strategy on child protection secondary prevention.
• **Case study 3:** Linked perinatal, births registration, housing, Child and Family Health Service and child protection data were used to understand different levels of adversity and vulnerability experienced by infants in South Australia. Of the estimated 20,000 births per year, about 70% will experience none or 1 risk factor and are likely to require universal (mainstream) services only, while 30% will experience 2 or more risk factors, indicating a potential need for more intensive support. These proportions are almost reversed among Aboriginal and Torres Strait Islander communities. This research informed the development of a new model of care and is also informing resource allocation from lower to higher areas of need.

The SA ECDP has been a platform for research and academic partnerships, including with government agencies. The opening up of data sources across Australia and the growing recognition of the value of linked data represent an opportunity to inform and evaluate innovative approaches to intractable social problems, such as child maltreatment, while preserving confidentiality and privacy.

*An innovative linked data platform to improve the wellbeing of children—the South Australian Early Childhood Development Project* (Chapter 8)
An overview of Australia’s welfare
Understandings and perceptions about what ‘welfare’ is and what it means in the Australian context vary. There is the broad meaning of welfare that relates to ‘wellbeing’ (of individuals, families and communities) (Buckmaster 2009). A more specific meaning relates to ‘welfare services and supports’—or the different welfare systems—including government programs, income support payments and assistance for people who experience hardship, are unable to participate in social and economic activities or excluded from them (Arthur 2015; Buckmaster 2009).

The AIHW understands welfare as a concept that extends beyond the welfare systems, and one that affects wellbeing—sometimes defined as the ‘state of being comfortable, healthy, or happy’ (Oxford University Press 2019). This perspective is illustrated in Figure 1.1, drawing from the conceptual framework for welfare information published in Australia’s welfare 2001 (AIHW 2001). It recognises that the concept of welfare is complex and that interrelated factors affect wellbeing, including personal/individual determinants, broader contextual factors, and services and supports.

![Figure 1.1: Conceptual framework for Australia’s welfare](image-url)
To understand the outcomes of the dynamic represented in this framework, data are essential. As a health and welfare statistics agency, the AIHW has a pivotal role in producing and reporting data to improve the wellbeing of Australians and, where possible, investigate the interrelationships.

This report explores some of the factors that contribute to, and affect, wellbeing. The discussions in this article look at Australia’s welfare indicators, the social, cultural and economic contexts for welfare and wellbeing, the relationship between health and welfare, the data landscape and the role of the AIHW. After these broad explorations, it summarises the 7 other articles in the report that cover a range of welfare and social issues. The articles present focused discussions and analyses of the issues, data and evidence.

**Australia’s welfare indicators**

The AIHW has reported welfare indicators since 2003 (AIHW 2003). Australia’s welfare indicators summarise the performance of welfare services, track individual and household determinants of the need for welfare support, and provide insights into the nation’s wellbeing more broadly. The AIHW developed an indicator framework for Australia’s welfare (Figure 1.2) to define the scope of investigation and organise topics into a logical structure (AIHW 2015). The framework has 3 core domains—wellbeing, determinants of wellbeing, and welfare services and supports—and an additional domain for other sectors and contextual factors. Within each domain, indicators are grouped into broad topics. Results for 47 indicators (with a focus on trends over time) are presented online, in an interactive data tool, and can be viewed at www.aihw.gov.au/reports-data/indicators/australias-welfare-indicators. Key findings drawing on most recent data where possible, are presented below.
How are we faring?

Based on the Australia’s welfare indicators, we are faring well on many aspects of wellbeing:

- **More students are finishing year 12.** In 2018, 90.0% of people aged 20–24 had completed year 12 (or equivalent) or a non-school qualification at Certificate II level or above. This is up from 84.5% in 2009 (ABS 2018c).

- **Non-school qualifications are on the rise.** In 2018, 65.1% of people aged 25–64 had a non-school qualification at Certificate III or above. This is up from 54.9% in 2009 (ABS 2018c). Australia also ranks in the top third of Organisation for Economic Co-operation and Development (OECD) countries for proportion of people with a tertiary education (OECD 2019a).
• **Three-quarters of working-age people have a job.** In 2018, 73.8% of people aged 15–64 were employed (annual average). This was Australia's highest ever annual average employment to population ratio (ABS 2019e). Australia's employment to population ratio is above the OECD average (OECD 2019f).

• **Fewer people are working very long hours.** In 2018, 13.6% of employed people worked 50 hours or more per week (annual average). This is down from 16.0% in 2009 (ABS 2019d). Despite this downward trend, Australia has one of the highest proportions of people working long hours compared with other OECD countries (OECD 2019e).

• **Voter enrolment has increased.** In June 2019, 97.1% of eligible people were enrolled to vote. This is up from 89.7% in 2010 (AEC 2019).

• **More homes have internet access.** In 2016–17, 86.1% of households had internet access at home. This is up from 67% in 2007–08 (ABS 2009, 2018d). Australia ranks near the middle of OECD countries for internet access (OECD 2019b).

• **Most crime rates are down.** Between 2008–09 and 2017–18, the proportion of people who experienced physical assault decreased from 3.1% to 2.4% and the proportion of households that experienced malicious property damage decreased from 11.1% to 5.1% (ABS 2019a).

• **Fewer Indigenous households are overcrowded.** In 2016, 10.0% of Indigenous households required 1 or more extra bedrooms. This is down from 13.6% in 2006 (AIHW 2019).

However, a few aspects of our lives warrant closer attention:

• **More low-income households are experiencing housing stress.** In 2017–18, 43.1% of lower income rental households spent more than 30% of their gross income on housing costs. This is up from 35.0% in 2007–08 (ABS 2019c).

• **Repeat periods of homelessness are on the rise.** In 2017–18, 5.2% of homelessness services clients experienced homelessness more than once within the reporting year. This is up from 4.2% in 2013–14 (SCRGSP 2019).

• **1 in 4 unemployed people are long-term unemployed.** In 2018, 24.5% of unemployed people aged 15 and over had been looking for work for more than a year (annual average). This is up from 14.8% in 2009 (ABS 2019d). However, Australia fares better on this measure than other countries—the long-term unemployment ratio in Australia is lower than the OECD average (OECD 2019c).
• **1 in 9 families with children are jobless.** In 2017, 11.6% of families with children under 15 had no usually resident person in the family aged 15 and over who was employed. The proportion of jobless families has remained relatively stable between 2012 (12.2%) and 2017 (ABS 2016, 2017a).

Australia’s welfare indicators also show interesting trends in:

• **Purchasing power**—between 2009 and 2018, Australia’s net disposable income per capita, adjusted for inflation, increased by 0.7% per year. This compares with an annual increase of 2.8% between 1999 and 2008 (ABS 2018a).

• **Income inequality**—as measured by the Gini coefficient, income inequality increased from 0.306 in 2003–04 to 0.336 in 2007–08 but remained relatively stable to 2017–18 (0.328) (ABS 2019b). Australia ranks near the middle of OECD countries for income inequality (OECD 2019d).

• **Household income**—between 2007–08 and 2017–18, the average weekly income per household, adjusted for inflation, increased by 0.4% per year. This compares with an annual increase of 3.3% between 1996–97 and 2005–06 (ABS 2019b).

• **Partner violence**—in 2016, 1.3% of people aged 18 and over had experienced physical and/or sexual violence from a current or previous partner in the previous 12 months. The proportion of women who experienced partner violence in the previous 12 months remained relatively stable between 2005 (1.5%) and 2016 (1.7%). The proportion of men who experienced partner violence in the previous 12 months increased between 2005 (0.4%) and 2016 (0.8%) (ABS 2017b).

• **Homelessness**—on Census night in 2016, 49.8 people per 10,000 population were homeless. This equates to a 4.6% increase in the rate of homeless persons over 5 years, from 47.6 per 10,000 population in 2011 (ABS 2018b).

• **Youth unemployment rate**—in 2018, 11.8% of people aged 15–24 in the labour force were unemployed (annual average). Between 2009 and 2018, the annual average youth unemployment rate fluctuated between 11.4% and 13.3% (ABS 2019e). Australia’s youth unemployment rate is close to the OECD average (OECD 2019g).

International comparisons are available for 18 of the Australia’s welfare indicators and these are summarised in *International comparisons of welfare data* [www.aihw.gov.au/reports/australias-welfare/international-comparisons-of-welfare-data](http://www.aihw.gov.au/reports/australias-welfare/international-comparisons-of-welfare-data). Most of these data are sourced from the OECD Better Life Index (OECD 2019e), which describes wellbeing as a multidimensional concept. It focuses on 11 topics in the areas of material living conditions and quality of life, with several indicators for each topic. For more information see [www.oecdbetterlifeindex.org](http://www.oecdbetterlifeindex.org).
What affects our welfare and wellbeing?

The conceptual framework for Australia’s welfare (see Figure 1.1) acknowledges that wellbeing is affected by wider contextual factors. Social, demographic, cultural and economic changes can have a significant impact on the wellbeing of individuals, families and communities. Not only are people affected in a personal way, but government policies, services and programs often respond to major changes and developments to counter potential or actual adverse effects; for example, government policy responses to the global financial crisis. Furthermore, policy, legal and regulatory reforms play a role in how people interact with social support services and the wellbeing of individuals; for example, the principles of consumer-directed care are central to the National Disability Insurance Scheme (NDIS) and aged care models.

Over the past 4 decades, structural changes to the economy as well as social changes have affected employment patterns—the proportion of part-time work has increased with more women entering the workforce; the composition of employment has changed with a greater proportion of jobs in the services sector; greater numbers of young people are balancing work with tertiary education; and more people are working past retirement age (Adeney 2018; Commonwealth of Australia 2018; Wooden 2017). These social and economic changes in turn affect patterns of income support receipt, as well as the types of services and supports available and used. Other factors that currently influence this dynamic are the level of wages growth, housing affordability, access to finance and credit, personal and household savings, opportunities for education and training, and changes in family structures and households. For example, changing social expectations about the role of informal care for children (and older people), coupled with changing work patterns, are connected to provision of services, government policies and work arrangements, all of which affect the decisions made by families.

Demographic and cultural changes have affected how governments and organisations delivering welfare services respond. Through shifts in cultural norms and attitudes, age structure and migration, Australia’s population is one that is ageing, growing and becoming more socially and culturally diverse, and has higher levels of education. There is a strong public focus on issues such as family, domestic and sexual violence, institutional abuse of children, older people and people with disability, inequality in health and social outcomes, risks of unhealthy lifestyles/living, and how individuals and society engage with technology.
Government responses to social changes sometimes result in royal commissions to investigate matters of public importance and recommend improvements. Various royal commissions and government inquiries (Commonwealth and state and territory) have been established following increasing public awareness of, and outcry about, systemic failures in some areas. Royal commissions, in particular, draw public attention to a number of welfare issues and can result in further research, action and improvements, including calls for more meaningful data. See Box 1.2 (at the end of this article) for details about recent royal commissions and government inquiries.

The importance of data about welfare

Governments and non-government organisations (NGOs) delivering welfare services face challenges in meeting the needs and expectations of a changing and diverse society. Responding to the increasing demands for evidence-based policies or decisions requires data and information about a range of welfare areas. In Australia, the federal system of government has implications for the operational arrangements for different policy, program and service areas. The AIHW plays an important role in working with the states and territories to establish national data standards and national minimum data sets. However, some data are not comparable across jurisdictions, particularly in areas such as child protection where the legislation and service systems differ. It can also be challenging to address national data gaps and to observe individual pathways through the welfare systems. However, increasingly the technological means and platforms are available to do this through data linkage.

Having the data to understand how individuals engage with, and navigate, various welfare services assists those responsible for planning, implementing and delivering services and programs. The ability to see and understand the picture holistically is crucial. The aim is to use public data for public good; and the goal is to improve health and welfare outcomes for individuals and communities. The AIHW’s people-centred data model (Figure 1.3) recognises the multiple policy and program areas that interact and that individual circumstances determine the level of support required. The model shows that the domains of housing, education and skills, employment and work, income and finance, health, social support, and justice and safety are all intricately connected. Achieving positive outcomes in one domain is likely dependent on positive outcomes in other domains. The AIHW uses this model to present the Australia’s welfare snapshots—a collection of 41 web pages that present the latest facts on housing, education and skills, employment and work, income and finance, social support, and justice and safety. Australia’s welfare snapshots can be viewed at www.aihw.gov.au/australias-welfare/snapshots.
Understanding the links between health and welfare

A person’s health and welfare are intricately linked and both play a key role in their ability to participate in work, education and training, as well as to engage with their community and social networks.

On many measures, Australians enjoy good health and welfare. Australia has one of the highest life expectancies in the world, which continues to rise, as do the years of life lived in full health. The majority of people rate their health and life satisfaction highly.

But disparities in outcomes exist for some. Several factors act together to either strengthen or undermine health and welfare. They are closely related and include:

- determinants of welfare and health, such as education, employment, income and adequacy of housing
- risk factors, such as tobacco smoking, alcohol consumption, physical inactivity, overweight and obesity, and inadequate consumption of fruit and vegetables
- social and personal factors, such as bullying, school truancy, poor family functioning and lack of social connectedness
- access to appropriate health and welfare services.
Some of Australia’s health and welfare services are designed to support everyone while others act as a safety net for those in high need. The health systems play a role in the prevention and treatment of disease, and other ill health and injury. The welfare systems support individuals and families with a range of government payments, such as income support payments, family assistance payments and supplementary payments, and through the provision of a variety of programs and support services, which include child protection, disability support, housing and homelessness, and aged care services.

For the most part, welfare systems support people in immediate need. However, government services in general, including education and training, also focus on improving the social and economic outcomes for individuals over the longer term. This is often achieved by ensuring a good start in life for all children with extra support for families and children in need.

Changes to the age structure, composition and characteristics of the Australian population affect the type of health and welfare services people need, when they need them, for how long and how often. As noted earlier in this article, understanding current and emerging societal changes is key to targeting the delivery of efficient and effective services for those in need. Good-quality and timely data about people forms the evidence base needed to understand the experiences of the population and various cohorts within it. Data also provide insights into how different areas interact, and therefore inform future policy and service delivery.

Key population groups with immediate and possible future need for welfare services include:

- young children and families—to prevent the intergenerational transmission of disadvantage to vulnerable children and young people
- people with disability— the NDIS is a key service to this group but both NDIS recipients and the broader group of people with disability also require access to the full range of mainstream welfare services
- older people—of particular importance is how to provide services that allow people to remain in their homes for as long as possible
- those likely to experience economic and social hardship, including a disproportionate number of Indigenous Australians, refugees and prisoners
- those living in regional and remote Australia, where access to services can be more challenging
- long-term unemployed, young people not engaged in education, employment or training, and long-term welfare dependants
- people experiencing entrenched long-term disadvantage
- people experiencing intergenerational trauma.
Current state of welfare data

High-quality and comprehensive data are critical to inform policy and the delivery of services for those in need. Better data can help to improve services from policy formulation to delivery and evaluation (Figure 1.4), which can in turn improve outcomes.

Figure 1.4: Role of data in policy and service delivery

The current data landscape is one where people have access to more data than ever before. This has been accompanied by an increased recognition of the importance of using public data as a strategic national resource to improve outcomes for the population while assuring the privacy and security of data. Commonwealth and state and territory legislation and governance arrangements are being adapted to support this evolving data landscape. This involves building public trust, even where there is acknowledgement of the value of using public data (AIHW 2017, 2018). However, governance frameworks and approaches to facilitate streamlined, safe, de-identified data sharing across governments and the research community are not well established, and this slows the generation of usable linked data. Similarly, while government, research and non-government bodies are rapidly developing capability in data linkage, analysis and use, challenges remain in building this capacity.
Within this broader context, there are some specific issues with the availability, quality and accessibility of welfare services data. These relate to comparability of data, data linkage, evaluation and measuring outcomes, and are described below.

There is a history of collating national data across certain service sectors, but data are not always comparable

Welfare services are provided by the Australian Government, state and territory governments and NGOs (both for-profit and not-for-profit). There is a long history of collating national data across certain service sectors (for example, disability, drug and alcohol treatment, child protection). However, where data are collected on the ground, they may not be collected consistently and therefore not be comparable over time or with other service providers. In some cases, they are not collated for analysis or are inaccessible for other reasons. This restricts the ability to evaluate outcomes for individuals who receive the services and the effectiveness of different services. By definition, such service data only relate to those people using the services and do not inform questions of unmet demand for services or barriers to access.

In addition to data from welfare services, Australia has a large and informative population survey program, predominantly delivered by the Australian Bureau of Statistics (ABS). Such surveys provide a wealth of cross-sectional information about the characteristics of potential welfare service users and their perceptions (for example, of barriers to service use).

Linking data across different services helps in understanding pathways and relationships between health and welfare

There is also a range of longitudinal welfare data sets in Australia. Over the past 20 years, a concerted effort has taken place to collect longitudinal data about the Australian population. Examples include the Household, Income and Labour Dynamics in Australia (HILDA) Survey, the Longitudinal Study of Australian Children (LSAC) and the Longitudinal Study of Indigenous Children (LSIC). These 3 studies are managed by the Department of Social Services’ National Centre for Longitudinal Data [www.dss.gov.au/about-the-department/national-centre-for-longitudinal-data](http://www.dss.gov.au/about-the-department/national-centre-for-longitudinal-data).
While Australia has a good range of longitudinal surveys, the use of linked longitudinal administrative data is in its infancy. Data linkage combines information from multiple sources, while preserving privacy. It is a cost-effective and non-intrusive way to build de-identified longitudinal data assets, and the mechanisms to protect privacy continue to be enhanced. Although the amount of linked data continues to grow, the linkage of data across the different welfare services, and between health and welfare services, is limited. To link such data sets would help to better understand welfare pathways and the relationships between health and welfare. There is also currently limited linkage of data sets about welfare services and outcomes such as employment, education and income.

Evaluations of welfare programs and the measurement of progress against indicators, are necessary to understand and improve outcomes

A lack of high-quality evaluation presents challenges. Much of the evaluation work undertaken to date has been short term or piecemeal. This limits understanding of which programs work best to improve outcomes for persons most in need. Having better linked, enduring, longitudinal administrative data would facilitate better and more cost-effective evaluations.

Finally, measuring progress in welfare outcomes, particularly as they relate to health and welfare services, requires consistent measurement against agreed indicators over time. There are opportunities to embed policy evaluation in national plans and agreements that specify performance measures—see, for example, the *Review of the National Disability Agreement, study report* (Productivity Commission 2019:22). Given the development of linked and longitudinal data, there is potential to improve the indicators selected for these purposes so that they support more holistic, outcomes-oriented reporting.

It is worth noting that some outcomes are not observed or cannot be observed while a program is operating as they require longer term or generational change. Early childhood education is a good example—some of the main benefits of early childhood education are not apparent until participants are teenagers. It is possible to observe the subsequent impact of programs and policies through data linkage. The Chicago Longitudinal Study, for example, has demonstrated the impact of early childhood education by linking administrative data (University of Minnesota 2019). In Australia, individual states and territories are taking steps to improve the way they build and use data to improve the long-term outcomes for children. Examples include the New South Wales Government’s Their Futures Matter [www.theirfuturesmatter.nsw.gov.au](http://www.theirfuturesmatter.nsw.gov.au) and the Murdoch Children’s Research Institute’s Generation Victoria (GenV) project [www.mcri.edu.au/genv](http://www.mcri.edu.au/genv)—see also ‘Chapter 8 An innovative linked data platform to improve the wellbeing of children—the South Australian Early Childhood Data Project’.
Major gaps in welfare data

Gaps exist where no national data are currently available or where data collected are not comprehensive. In the context of welfare data, these include gaps in:

- understanding of risk factors—for example, causes of homelessness
- incidence and prevalence data—for example, children who experience abuse and neglect, assessed need for support services
- measurement of demand for welfare services—for example, unmet demand for specific welfare services, people who ‘fall through the cracks’ in the welfare systems
- details about types of welfare services accessed—for example, supports provided under consumer-directed care models for aged care, services funded by NGOs
- pathways through the welfare systems—for example, education and employment experiences of vulnerable cohorts, referral pathways, how people transition between different services and across different ‘systems’
- outcomes for people who receive welfare services—for example, outcomes of aged care, the relationship between recidivism and social assistance
- long-term effects on individuals and their families—for example, impact of discrimination against minority populations, tracking children from out-of-home care, intergenerational transmission of risk factors
- information about populations of interest—for example, Indigenous people using mainstream services, identifying people with disability and other vulnerable cohorts in data collections
- geospatial information—for example, information about remote Indigenous communities, locational variation in welfare services and outcomes.

The AIHW’s role

The AIHW is Australia’s leading health and welfare statistics agency. Our legislated role is to work with others to develop information standards and collections across health and welfare, and to publish statistics across these areas. We work closely with governments—including state/territory authorities with health and welfare responsibilities, the ABS and other research and statistics agencies—and with academia and the non-government sector to make this happen.
The AIHW collects and uses data from a range of sources—including administrative, census, survey, longitudinal and linked data—to present information on:

- characteristics of people and their needs, and how these change during their lives
- characteristics of the places where people live
- availability and accessibility of health and welfare services in those places
- how the characteristics of people, places and services change over time.

In addition to describing the current picture and trends affecting the health and welfare of the Australian population, a key focus of the AIHW's work is on comparing outcomes for different population groups, including Indigenous Australians, people living in remote areas, older people, people with disability, people with mental illness, children in the child protection and justice systems, and prisoners.

Data standards play a critical role in the meaningful use of data. The AIHW cleans, validates and standardises data to allow comparisons between different population groups and areas and over time.

The AIHW has a strong focus on the presentation of information at the local geographical level, where services and programs are delivered. The aim is to assist local decision makers with planning and policy decisions. The analyses highlight areas and groups where program and service delivery efforts should be focused.

In recognition of the importance of linked data sets in understanding the relationships between health and welfare and outcomes for people, the AIHW is working to expand the availability of longitudinal data by linking cross-sectional data and information about individuals that exist in different data sets and over time. This approach allows the study of the different pathways that people use to access services and can identify the most common pathways. It also allows an understanding of whether, and which, particular services improve outcomes over time. Furthermore, linkage may be useful to understand the early signs of vulnerability to a life of disadvantage.

All linked data sets used for analysis at the AIHW comply with legislative and regulatory standards, are securely stored and accessed, and meet ethical standards and community expectations. Protocols are in place to prevent privacy breaches or the unauthorised identification of individuals, and to ensure data security and restricted access to information.
The AIHW strives to make its data and findings accessible to a range of audiences through the release of many products, including fact sheets, summary reports and detailed reports. The AIHW is improving the accessibility of its data holdings through interactive data visualisation and making data more available in accessible formats. Significant effort is also being dedicated to the creation of a more data-driven AIHW website (for example, GEN Aged Care Data www.gen-agedcaredata.gov.au).

One of the key priorities is to build capacity and support service providers to understand and use health and welfare data. To this end, the AIHW provides accurate, reliable and comparable data securely to a range of service providers so they can use the data to improve service delivery and outcomes for their clients.

Finally, a key focus of the AIHW is to fill data gaps as they relate to health and welfare, working with data providers to enhance existing collections or create new ones. Increasingly, this is achieved through the creation of new linked data sets and facilitating access to linked or other unit record data in secure research environments. Through such activities, the broader pool of experts can access the data they need to answer the highest priority policy questions.

Box 1.1 presents a selection of current and recent projects that demonstrate the AIHW’s roles in data collection, analysis and reporting or presentation in the context of welfare data.
Box 1.1: Selected recent examples of major AIHW projects involving welfare data

Open and accessible welfare data
AIHW’s products and services make data and information about Australia’s health and welfare open and accessible. This includes data-centred websites:

- GEN www.gen-agedcaredata.gov.au, launched in August 2017, is a comprehensive website for data and information about aged care in Australia.
- Housing data www.housingdata.gov.au, launched in August 2019, presents housing and homelessness related interactive data visualisations, collating around 8 million data points from over 20 key national data assets.
- Aboriginal and Torres Strait Islander Health Performance Framework Report (forthcoming).

The AIHW also facilitates researcher access to more granular data while protecting privacy. In addition to AIHW data collections, we also act as a release point for 2 of the Department of Social Services’ researchable income support data assets: the Priority Investment Approach (PIA) data set and Data Over Multiple Individual Occurrences (DOMINO).

Value-added analysis of welfare data
The AIHW applies its capability in the health and welfare domains to turn data and information into knowledge and intelligence. Australia’s welfare snapshots www.aihw.gov.au/australias-welfare/snapshots uses the people-centred data model to present a comprehensive picture of welfare in Australia. Other recent and forthcoming reports have adopted a similar structure to bring together data from multiple sources, including:

- A profile of Australia’s veterans 2018 and 2020 (forthcoming)
- People with disability in Australia 2019
- Australia’s children.

The AIHW’s value-added analysis is also demonstrated in our collaboration with other organisations. For example, the Healing Foundation commissioned a series of reports about the Stolen Generations and their descendants:

- Aboriginal and Torres Strait Islander Stolen Generations and descendants: numbers, demographic characteristics and selected outcomes
- Aboriginal and Torres Strait Islander Stolen Generations aged 50 and over
- Children living in households with members of the Stolen Generations.

continued
Box 1.1 (continued): Selected recent examples of major AIHW projects involving welfare data

Welfare data improvements though linkage
The AIHW is able to respond to gaps in information and knowledge by linking health and welfare data. This includes enduring multisource data holdings. For example, the first version of the National Health Services Information Analysis Asset has been built. The asset contains de-identified data from 2010–11 to 2016–17 on admitted patient care services (in all public and, where available, private hospitals), emergency department services and outpatient services in public hospitals for all participating states and territories (New South Wales, Victoria, South Australia and Tasmania). It also includes national data for the same period from the Medicare Benefits Schedule, Pharmaceutical Benefits Scheme and Repatriation Pharmaceutical Benefits Scheme as well as Residential Aged Care data and National Deaths Index data.

The AIHW is also using DOMINO, a longitudinal researchable database on income support payments and characteristics, to examine the long-term welfare outcomes and transitions for vulnerable and disadvantaged groups. For example:
• children who have experienced out-of-home care—by linking DOMINO with State and Territory out-of-home care data
• young people leaving youth justice supervision—by linking DOMINO with Juvenile Justice National Minimum Data Set.

Current issues in Australia’s welfare
This article has explored the breadth of issues which relate to welfare services and data—recognising the interconnected nature of welfare and wellbeing to social, economic and cultural developments and changes, and gaps in the data landscape. The longer term trends based on indicators of Australia’s welfare are useful to understand how we are progressing as a nation. The 7 articles that follow explore issues related to intergenerational disadvantage, income support, the future of work, disability services and data, elder abuse and child wellbeing.

The first 3 articles examine earnings, income support receipt and dependence.
Intergenerational transmission of disadvantage in Australia, by Deborah Cobb-Clark (University of Sydney), explores the transmission of socioeconomic disadvantage (and advantage) from one generation to the next. The article reviews the literature on earnings persistence and welfare receipt in Australia and identifies key data and knowledge gaps. Income inequality in Australia is higher now than it was in the 1980s (though with little change since the mid-2000s) and wealth is more unequally distributed than income. In this context, examining inequality (including income inequality) is important since, as Cobb-Clark notes, rising inequality reduces ‘social mobility by making it harder for disadvantaged Australian children to avoid becoming disadvantaged adults’. However, measuring income inequality can be difficult. Intergenerational earnings elasticities—a measure of the extent to which parents’ earnings determine children’s earnings—are used by economists as indicators of the persistence of economic advantage, but constructing them presents data and methodological challenges. Cobb-Clark explores the methodologies and data used for estimates in different studies. While the Australian evidence for intergenerational earnings persistence has only been available for around 12 years, the Australian evidence for intergenerational welfare receipt first emerged in the 1990s. Intergenerational welfare receipt not only reflects a lack of income, but also low levels of wealth, poor health and inadequate housing. There is evidence of some continuation of social and economic positions from one generation to the next in this country, placing Australia somewhere in the middle in terms of social mobility for developed countries. Cobb-Clark concludes that the understanding of social mobility in Australia is evolving with longitudinal survey and administrative data sets. However, she notes that access to richer and more varied data overseas has allowed for a deeper understanding of intergenerational disadvantage. She concludes that the current Australian evidence is correlational and that to reduce the intergenerational transmission of inequality there needs to be a greater focus on causality so that governments can adopt more effective policy approaches.

In Income support over the past 20 years, the AIHW analyses patterns and trends in income support receipt in Australia between 1999 and 2018 for people aged 18–64. The article discusses patterns in income support receipt in relation to key factors that influence its demand and supply; in particular, changes in demographics, economic conditions and social policy. The analysis shows there has been a decline in income support receipt among people aged 18–64 over the past 20 years. Pathways through the system are also examined, focusing on the movement between different payment types. Analysis of a cohort of income support recipients in 2009 found that 56% had also been in receipt of income support in 2000 and 64% received income support in 2018. Understanding these pathways can provide a deeper understanding of how some people interact with the system. The AIHW is using income support data to gain a better understanding of the experiences of, and outcomes for, Australians.
The AIHW also analysed income support data to look at *Income support among working-age Indigenous Australians*. Around half of Aboriginal and Torres Strait Islander Australians aged 15–64 received an income support payment in 2016. This article includes detailed analysis of the characteristics of income support recipients, trends in receipt and income support reliance. The analysis of the degree of income support reliance finds that between 2002 and 2008, the mean income support reliance rate was around 70% for Indigenous Australians, increasing to around 77% in 2016. The article also examines long-term receipt of income support and movements between payment types. A group of Indigenous Australians who received income support payments in 2002 were tracked through the data, and just under one-fifth (19%) had left income support by 2014. The AIHW will continue this work on income support receipt and reliance for Indigenous Australians, expanding on the analysis in this article.

Work and paid employment are critical to the welfare (and wellbeing) of Australians. The nature of work and employment is changing, and has been changing for a number of decades, with the shift in the structure of the economy to one that is increasingly service based. Some of this change relates to increasing automation in jobs. *The future of work: using skills data for better job outcomes*, by the Department of Employment, Skills, Small and Family Business, looks at changes to job profiles and skills into the future. The article reviews international literature on automation, jobs and skills. It also explores how a granular skills approach using static and dynamic data can offer insights to answer some of the questions about the future of work. Rather than focusing on job loss through automation, the article argues that it is more beneficial to understand the likely changes to jobs and the necessary skills needed for Australia’s future labour market and economy. The workforce will need to adapt to job changes and the creation of new jobs. The article notes that skills-based approaches will be helpful in responding to changing demand for skills as a result of technological changes. It explores skills analysis tools and data as means of assisting with job transitions.

The next 2 articles focus on social service areas that are undergoing change (disability services) and emerging as areas of concern (elder abuse).

In *Disability services and statistics: past, present and future*, Rosamond Madden and Richard Madden (University of Sydney) trace the history of disability services, policies and data in Australia. The article highlights the many changes, drivers and key developments from the early 20th century to the present day. The authors look at the interplay of ideas, policy and national data over this period internationally and in Australia. The thinking about disability and attitudes towards people with disability have changed over this period in many parts of the world. This change in the understanding of people with disability and their needs has also seen changes in
government policy on disability services. Support services for people with disability in Australia have evolved over time and culminated in the introduction of the NDIS in 2013. The authors note the opportunities presented by these changes to improve disability services data, in order to better meet the needs of people with disability. The article provides an illustration of how ideas and approaches to social services and policies evolve and change over time, affecting the type of services provided, the understanding of needs, and the need for data for improved services.

Elder abuse has recently come to public attention through media stories and the current Royal Commission into Aged Care Quality and Safety, and is also the focus of various government programs and initiatives, including the National Plan to Respond to the Abuse of Older Australians (Elder Abuse) 2019–2023. The article by Briony Dow and Bianca Brijnath (National Ageing Research Institute), *Elder abuse: context, concepts and challenges*, explores the many issues around elder abuse, including approaches and attempts to address this problem. Elder abuse can include abuse that is financial, psychological, physical, sexual or social, as well as neglect. Dow and Brijnath note that a lot of elder abuse is undetected, especially neglect which can go unnoticed by health and welfare services. The authors explore the cultural dimensions of elder abuse, noting that perceptions, forms and responses to it are culturally mediated. There is a knowledge gap about how elder abuse is experienced cross-culturally, and this has implications for how countries with an ageing and multicultural society, like Australia, are able to respond to it. Risk factors for elder abuse are broad ranging and can include cognitive, physical, psychological and social factors, as well as financial and economic factors. Understanding these risk factors and how to deal with them means appreciating that responding to elder abuse is a complex policy area involving all jurisdictions—cutting across mental health, housing, aged care, banking, legal and substance abuse. Dow and Brijnath discuss some approaches for preventing or stopping elder abuse, but also acknowledge the complexities and that this is an evolving area. The authors note the critical knowledge gaps in this field and the work that is yet to be done, including definitional issues. While there is little in the way of data on elder abuse in Australia, preparation for a prevalence study is underway.

Having more data on disability services and elder abuse would improve our understanding of how best to address the needs of people with disability and people experiencing elder abuse. An example of how data, and especially linked data, can assist in understanding welfare issues and also improve services in these areas is the South Australian Early Childhood Data Project (SA ECDP).
An innovative linked data platform to improve the wellbeing of children—South Australian Early Childhood Development Project, written by a research team at the University of Adelaide, demonstrates the use and the potential of data linkage through the SA ECDP. The article discusses the importance of using public data for public good and illustrates this through the SA ECDP’s linking of data sets across various areas to improve child wellbeing. It also looks at the importance of partnerships between governments, universities, researchers, services and communities to achieve these goals. In the past decade, governments in Australia have invested in internal capability to use data to inform policy and service delivery decisions. In 2018, the Australian Government introduced a range of policy and legislative measures to increase the use of public data. The authors write of the need to demonstrate public good in the use of public data, and note that a common theme from the Australian Government is ‘enabling public benefit while preserving privacy and security, and building community trust’. Three case studies from the SA ECDP are used to illustrate the value of data linkage and its public good: a public health approach to child maltreatment; describing priority populations with high prevention potential; and redesigning a model of care. It is not just about gathering and analysing data, but about ‘returning data to source’. This means giving priority to communicating research findings back to frontline workers who collect and input the data, and increasingly to community groups, where possible. This is essential to any data collection quality-improvement process. The authors also raise questions about how to move forward with partnerships and collaboration between researchers and government. They conclude by noting that a coordinated data infrastructure is required to achieve better child health and welfare outcomes.

These 7 articles highlight the somewhat patchy nature of data about welfare. They also draw to attention that the point is not just about having the data, but what is done with the data and how it can be used to improve health and welfare services for individuals and communities and thereby achieve better outcomes.
Box 1.2: Recent royal commissions and government inquiries

In recent years, royal commissions, government inquiries and reviews have been established to inquire into a range of social issues, including the treatment of people with disability, aged care services, financial services, child abuse and welfare, family violence, welfare dependence, changes in work and education.

Here, we list royal commissions and government inquiries/reviews that relate to issues of particular interest to Australia's welfare. However, this is not an exhaustive list.

Royal commissions

Many of these royal commissions have been high profile and, because of the subject of inquiry, received significant media, public and political attention.

- The Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability (Commonwealth) was announced on 4 April 2019 (Commonwealth of Australia 2019c). It will cover all forms of violence against, and abuse, neglect and exploitation of, people with disability, in all settings and contexts. A final report is due by April 2022. disability.royalcommission.gov.au

- The Royal Commission into Aged Care Quality and Safety (Commonwealth) was established on 8 October 2018 (Commonwealth of Australia 2019a). Its Terms of Reference include inquiring broadly into aged care services and their quality, safety, provision, delivery, sustainability and person-centred focus. The final report is due in April 2020. agedcare.royalcommission.gov.au

- The Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry (Commonwealth) was established on 14 December 2017 and the final report was submitted on 1 February 2019 (Commonwealth of Australia 2019b). financialservices.royalcommission.gov.au

- The Royal Commission into Institutional Responses to Child Sexual Abuse (Commonwealth) was announced on 12 November 2012. The final report was submitted on 15 December 2017 (Commonwealth of Australia 2017a). The Royal Commission established a program of research to support its work, including primary research to fill evidence gaps, and more than 100 research projects were undertaken (Wright et al. 2017). Its findings and recommendations have implications for all jurisdictions in Australia. www.childabuseroyalcommission.gov.au


continued
Box 1.2 (continued): Recent royal commissions and government inquiries

- The Royal Commission into Family Violence (Victoria) was established in February 2015 to inquire into establishing best practice for the prevention, early intervention, support and accountability in relation to family violence (State of Victoria 2016). The final report was presented to the Victorian Government in March 2016. [www.rcfv.com.au](http://www.rcfv.com.au)

Government inquiries and reviews

Inquiries and reviews conducted by parliamentary committees and government agencies do not always receive the same level of public attention as royal commissions. However, they also play an important role examining the effectiveness of laws, regulations and policies, and the impacts and outcomes for individuals and communities, and recommend ways forward.


- The Senate Select Committee on the Future of Work and Workers was established on 19 October 2017 to inquire into, and report on, the impact of technological and other change on the future of work and workers in Australia (Parliament of Australia 2018). The final report was tabled on 19 September 2018. [www.aph.gov.au/Parliamentary_Business/Committees/Senate/Future_of_Work_and_Workers/FutureofWork](http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Future_of_Work_and_Workers/FutureofWork)

- The Australian Law Reform Commission inquiry into elder abuse, ‘Protecting the Rights of Older Australians from Abuse’, was announced on 24 February 2016, to examine laws and frameworks that aim to safeguard and protect older persons (ALRC 2017). The final report was tabled on 14 June 2017. Recommendations for a national prevalence study and national plan by the inquiry are being implemented by the Australian Government—see ‘Chapter 7 Elder abuse: context, concepts and challenges’. [www.alrc.gov.au/inquiries/elder-abuse](http://www.alrc.gov.au/inquiries/elder-abuse)

Over the past 15 years, there have also been numerous inquiries and reviews (in all states and territories) into various aspects of child protection and child welfare systems, including out-of-home care, abuse, safety, vulnerability and Indigenous children.

Similarly there have been several inquiries and reviews over the past 10 years in most jurisdictions into abuse of older people covering various aspects of abuse.

The Productivity Commission also plays an important role in public inquiries and research studies requested by the government. It contributes by providing quality, independent advice and information to governments, and on the communication of ideas and analysis.
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Intergenerational transmission of disadvantage in Australia

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Globally, there is a widening divide in the wellbeing of people at the top of the socioeconomic ladder and people at the bottom. Despite tremendous economic growth, more than 75% of people in developing countries are living in societies that are more unequal today than they were in the 1990s (UNDP 2013). In Organisation for Economic Co-operation and Development (OECD) countries, the ratio of average disposable income in the top versus the bottom decile now stands at 9.5; up from around 7 in the 1980s (Keeley 2015).

Australia has not been immune to these global trends. Although the exact level and trend in income inequality depends on the data source and measure considered, income inequality today is higher than it was in the 1980s, though there appears to have been little change since the mid-2000s (see ABS 2019; Whiteford 2015; Wilkins 2014, 2015). Wealth is also becoming more unequally distributed. The latest data from the Australian Bureau of Statistics (2019) suggests that while the middle 20% and the top 20% of Australian households have experienced a real increase in average net worth from 2003-04 to 2017-18, the bottom 20% did not experience any real increase over this period. In 2017-18, the top 20% owned 63% of total household wealth, the middle 20% owned 11% and the bottom 20% owned less than 1%; the mean net worth of the wealthiest 20% was more than 90 times that of the lowest 20% of households. Rising property values and superannuation balances are the two most important contributors to increasing household wealth (ABS 2019).

Rising inequality pulls the rungs of the socioeconomic ladder further apart, reducing social mobility by making it harder for disadvantaged Australian children to avoid becoming disadvantaged adults.

This article provides an overview of the Australian evidence on the extent to which socioeconomic disadvantage is transmitted from one generation to the next. While there is a large literature on the intergenerational transmission of education, occupation and social status, the focus here is on disadvantage as seen through the lens of income (earnings) and welfare receipt. The goal is to place the Australian evidence in the international context and identify key data and knowledge gaps.
The nexus between intergenerational disadvantage and social mobility

Socioeconomic disadvantage is a multifaceted concept reflecting not only people's lack of economic resources, but also their social exclusion, missing political voice and limited aspirations. Disadvantage can persist within communities—and across generations—whenever there is a lack of social and economic opportunities for vulnerable people and their families.

Constrained social mobility imposes costs on society. A lack of upward social mobility at the bottom of the distribution means that many people's talents are squandered, undermining productivity and economic growth (OECD 2017). At the same time, a lack of social mobility at the top of the distribution ‘may translate into persistent rents for a few at the expense of many, due to unequal access to educational, economic or financial opportunities' also resulting in inefficiencies (OECD 2018:13). Perceptions matter. The prospects for upward mobility have been linked to greater life satisfaction and improved wellbeing, while pessimism about social mobility can undermine social cohesion and the democratic process (OECD 2018).

Ultimately, any reduction in intergenerational disadvantage in Australia must come from reducing the persistence in socioeconomic position and increasing the opportunities for social mobility.

Intergenerational earnings and income

Economists rely on intergenerational earnings elasticities as a simple indicator of the persistence of economic advantage. A larger elasticity implies a greater degree of intergenerational persistence. An elasticity of 0.3, for example, implies that a 10% increase in parents' earnings is associated with a 3% increase in their children's earnings. An elasticity of zero indicates that the earnings of parents and children are unrelated, while the elasticity will be closer to 1 if parents and children occupy the same position in the earnings distribution. Greater earnings persistence across generations results in less social mobility, leaving children's feet more firmly fastened to their parents' rung on the socioeconomic ladder.

Constructing intergenerational elasticities is both data intensive and methodologically difficult; estimates are sensitive (sometimes highly sensitive) to the way they are constructed. We virtually never observe the earnings of parents and their adult children at the same stage of life, for example, implying that earnings must be predicted for one generation or the other. Short study periods (Mazumder 2005; Page 2004) and measurement error (Bowles & Gintis 2002; Solon 1992; Zimmerman 1992) both tend to result in attenuation bias, leading to smaller estimates of intergenerational persistence. Consequently, it is important to consider the underlying data and method when comparing estimates across studies. See Table 2.1 at the end of this article for an overview of the studies discussed below.
Early Australian evidence

Leigh (2007) is the first to document the degree of intergenerational earnings mobility in Australia. He estimates earnings elasticities for sons born between 1911 and 1979 using occupation-specific predictions of their fathers’ earnings. His results imply that if an Australian father’s earnings increased by 10%, his son’s earnings would rise by 2%–3%. Applying the same method to United States data results in a significantly higher intergenerational elasticity, indicating that mobility is higher in Australia than in the United States. Earnings mobility for native-born fathers and sons is very similar in the 2 countries; however, immigrants are less socially mobile, particularly in the United States. Leigh’s work has been particularly influential in allowing Australian evidence to weigh in on the international debate on social mobility. Many experts have noted that countries with high social mobility tend to have low inequality—a relationship that former United States presidential adviser Alan Krueger dubbed ‘The Great Gatsby Curve’ (see Corak 2013; Mendolia & Siminski 2016). Leigh’s (2007) elasticity estimates imply that, in the international context, Australian social mobility is relatively high given its degree of inequality (Corak 2013).

New Australian evidence

Five new studies re-examining Leigh’s (2007) original estimates of Australian social mobility have been published since 2016. Four of them utilise similar estimation samples drawn from the Household, Income and Labour Dynamics in Australia (HILDA) Survey, allowing researchers to replicate results and draw inferences about the impact of alternative methods on the resulting estimates. The fifth uses tax records to estimate the intergenerational mobility of people born between 1978 and 1982.

Mendolia and Siminski (2016) estimate intergenerational earning elasticities for men (sons) aged 25–54 using 12 waves of HILDA data. They closely follow Leigh’s (2007) estimation approach in predicting fathers’ earnings (using their 4-digit occupations) and rescaling estimates using a United States benchmark to adjust for the attenuation bias that results from this imputation.² They use considerably more data than Leigh, however, which increases estimation precision. Mendolia and Siminski’s preferred estimates imply that a 10% increase in a father’s earnings is associated with a 3.5% increase in his son’s earnings; a substantially higher degree of intergenerational persistence than that estimated by Leigh. They conclude that Australian social mobility is not particularly high and is consistent with its level of inequality.
Huang and others (2016) adopt a different methodological approach, estimating father–son earnings elasticities using a 2-stage panel data model estimated with HILDA data from 2001 to 2013. Unlike Mendolia and Siminski (2016), they do not adjust for the measurement error associated with imputing fathers’ earnings. They make a contribution in examining the sensitivity of their elasticity estimates to: (i) alternative earnings measures (hourly, weekly, annual); and (ii) the level of occupational aggregation (2-, 3- or 4-digit) used in predicting fathers’ earnings. The preferred estimates of Huang and others (2016) imply that a 10% increase in fathers’ hourly earnings results in a 2.4%–2.8% increase in their sons’ hourly earnings. Estimates range, however, from 1.1% to 3.0%, confirming the sensitivity of estimated earnings elasticities to the method and data used.

Fairbrother and Mahadevan (2016) provide the only Australian estimates of intergenerational earnings elasticities for mothers and daughters as well as for fathers and sons. Like others, they also rely on multiple waves of HILDA data (specifically from 2001 to 2013) and predict parental earnings based on their occupation when the respondent was aged 14. Their estimates imply that a 10% increase in fathers’ hourly earnings is associated with a 2.0% increase in their sons’ hourly earnings and a 0.8% increase in the hourly earnings of their daughters (see Table 2.1). In comparison, a 10% increase in mothers’ annual earnings is linked to a 1.5% increase in their daughters’ hourly earnings and a 1.6% increase in the hourly earnings of their sons. Interestingly, the gender pattern in annual earnings elasticities is substantially different; father–son and mother–son annual earnings elasticities are slightly lower than are hourly earnings elasticities, while father–daughter annual earnings elasticities are slightly higher and mother–daughter annual earnings elasticities more than double. Thus, decisions about how much to work contribute to the intergenerational persistence in economic advantage between Australian mothers and their daughters.

None of the previous 4 studies discussed above (including Leigh’s) use truly intergenerational data. Murray and others (2017) provide the first estimates of intergenerational mobility for Australia that are based on directly observed incomes for parents and their children. They focus on young people born between 1984 and 1986 who were aged 15–17 in 2001 when the HILDA Survey commenced. This allows them to identify 489 parent–child pairs with HILDA earnings data for both generations. Adopting a methodological approach used by Chetty and others (2014) to estimate intergenerational elasticities from United States federal income tax data, the authors calculate that a 10% increase in parental household income is associated with a 2.8% increase in the household income of adult children. This estimate rises to 4.1% once an adjustment for potential attenuation bias is made.3
In recent work, Deutscher and Mazumder (2019) estimate intergenerational mobility using income tax data—the Australian Taxation Office (ATO) Australian Longitudinal Individuals File—from 1991 to 2015. The data cover over a million Australians born between 1978 and 1982, 90% of whom can be linked to their parents through applications for tax file numbers (see Deutscher 2018 for details). The authors find that the intergenerational elasticity in total income is 0.185, while the rank correlation is 0.215, suggesting that Australia is among the most mobile countries in the world. Producing the first regional estimates of intergenerational mobility in Australia, Deutscher and Mazumder (2019) conclude that while mobility is rapid throughout most of the country, there is meaningful dispersion—with the mining boom, in particular, driving strong upward mobility over this period.

**Intergenerational welfare receipt**

Intergenerational welfare receipt is a broader marker of intergenerational disadvantage than is traditional income poverty. It reflects not only a lack of income, but also low levels of wealth, poor health, inadequate housing and limited aspirations. Growing up in a family receiving social assistance is a marker for compromised long-term development (Weitoft et al. 2008). At the same time, receiving welfare is not the same thing as being dependent on welfare (Penman 2006); we know very little about the extent to which receipt translates into dependence.

**Early Australian evidence**

Australian evidence on intergenerational welfare receipt first emerged in the late 1990s—more than a decade before Leigh’s (2007) research on the intergenerational persistence in earnings. Although large-scale data linking welfare receipt across generations are virtually non-existent elsewhere in the world (Corak 2006; Dahl et al. 2014), Australian public servants successfully linked administrative social security data for a birth cohort of children to their parents. Analysis of the Transgenerational Data Set (TDS) (see Box 2.1) indicated that although only 1 in 6 young Australians (aged 16–18) in welfare-reliant families received income support themselves, they were much more likely to do so than their advantaged peers (McCoull & Pech 2000; Pech & McCoull 2000). Moreover, the data indicated that ‘a large proportion of total income support receipt is concentrated among relatively few families, and that there may be little long-term mobility out of the income support system’ (Pech & McCoull 2000:50).
Box 2.1: The Transgenerational Data Set

The TDS links the social security records of a birth cohort of young adults to those of their parents. Multiple versions of the TDS have been constructed over the years. The initial TDS was constructed in the 1990s and was the basis for the early work of departmental officers on intergenerational disadvantage (McCoull & Pech 2000; Pech & McCoull 2000). In the early 2000s, a second version of the data (TDS2) was created and matched to survey data as part of the Youth in Focus project which ended in 2008 (Breunig et al. 2009). In 2014, the TDS2 data were extended (referred to as TDS2-E) to include updated administrative records for the period 2008–2014.

In the intervening years, considerable effort has been devoted to identifying the ways that Australian welfare receipt is passed from one generation to the next. The Youth in Focus project linked survey data for a representative sample of Australian youth (aged 18–20) and their mothers to the family’s intergenerational social security records updated to 2008 (TDS2) (Breunig et al. 2009). Analyses of Youth in Focus data have been particularly important in establishing that Australian young people in welfare-reliant families: (i) engage in more risky behaviour (Cobb-Clark et al. 2012), though this is reduced with participation in extracurricular activities (Le 2013); (ii) are less likely to reside with, and receive any financial support from, their parents (Cobb-Clark & Gørgens 2014); (iii) are more socially isolated (Ryan & Sartbayeva 2011); and (iv) are more likely to be in favour of generous, publicly funded unemployment benefits (Barón et al. 2015). Each of these represents a potential pathway linking socioeconomic disadvantage across generations.

New Australian evidence

While the early Australian research discussed above highlights crucial differences in the experiences of disadvantaged youth as they complete their education and prepare to enter the labour market, aged just 18–20, they are too young to be completely informative about the extent to which growing up in a welfare-reliant family is associated with long-term disadvantage in adulthood. A recent extension of the TDS2 (TDS2-E) (see Box 2.1) to include the years 2008–2014 is supporting new research which seeks to fill this gap by following disadvantaged youth into their mid-20s.
Analysing TDS2-E data, Cobb-Clark and others (2017) find that 58.0% of young Australians receive welfare between the ages of 18 and 26 if their parents ever received welfare compared with 31.8% if they did not—a ratio of 1.8 (see Figure 2.1). Given that welfare receipt is concentrated at the younger end of this age range because of Youth Allowance, this ratio would rise if the focus were limited to those in their mid-20s. In comparison, Page (2004:231) estimates that women in the United States are 2.8 times more likely to receive welfare if their mothers also received welfare. Similarly, Stenberg (2000:231, Table 1) estimates that, in Sweden, the likelihood of adults receiving social assistance is approximately 2.5 times higher if their families received social assistance while they were growing up. The intergenerational correlation in welfare receipt varies across payment types, however, indicating that some forms of disadvantage may be more easily transferred from parents to children than others (see Figure 2.1).

**Figure 2.1: Young Australians’ chances of receiving welfare (aged 18–26) by parental welfare receipt**

Payment type

- Any social assistance payment
- Disability Support Pension
- Disability Support Pension—physical
- Disability Support Pension—mental
- Carer Payment
- Parenting Payment Partnered
- Parenting Payment Single
- Newstart Allowance

No parental receipt

Parental receipt

*Note:* A larger disparity in the relative chance of receiving welfare given parental welfare receipt indicates a larger intergenerational correlation in welfare receipt.

*Source:* Cobb-Clark et al. 2017: Table 5.
Cobb-Clark and others (2017) also provide evidence that parental disability—particularly when related to mental health issues—is linked not just to higher rates of disability among their adult children, but also to a greater need for a range of welfare payments. Young adults are also much more likely to receive a range of welfare payments if they grow up in single- rather than couple-headed families receiving parenting payments, suggesting that family structure matters for intergenerational disadvantage. Finally, age matters; young people are 1.6 times more likely to receive unemployment payments before age 22 (1.3 times after age 22) if their parents received unemployment payments while they were growing up (Cobb-Clark et al. 2017).

On balance, this Australian evidence is consistent with the international literature. Dahl and others (2014) and Dahl and Gielen (2018), for example, also provide evidence of an intergenerational relationship in the take-up of disability benefits in Norway and the Netherlands. Similarly, Cobb-Clark and others (2017) estimate young people’s likelihood of receiving single-parent payments is 2.2 times greater if their families also received single-parent payments. This is consistent with United States’ evidence that children of separated parents are twice as likely to become single parents themselves (McLanahan & Sandefur 2009). Finally, the intergenerational correlation in Australian unemployment benefits is similar to that of men in Canada and Sweden (Cobb-Clark et al. 2017; Corak et al. 2004:255).

Moving forward

There is clear evidence that Australian parents pass some part of their social and economic position on to their children. Social mobility is likely lower in Australia than in some developed countries (principally Scandinavian and Nordic countries) and higher than in others (most notably the United States). While this is good to know, ‘obtaining precise and accurate estimates of intergenerational mobility can only inform relatively narrow understanding of equality of opportunity in Australia’ (Murray et al. 2017:29).

Going forward, it will be important to move beyond international benchmarking exercises to develop a better understanding of the process underlying Australian social mobility. In particular, the emerging Australian evidence hints at several key pathways through which intergenerational disadvantage may be occurring—for example, family structure, parental disability and labour supply decisions (see Perales et al. 2014). There are no doubt others yet to be discovered.

Which lines of inquiry are pursued and which fall through the cracks will, in the end, be driven by the available data. Better data allow researchers to utilise more advanced methods and expand the scope of their investigations. Our understanding of social mobility in Australia is quickly evolving as the HILDA Survey and TDS data sets mature and other administrative data sets like the ATO Australian Longitudinal Individuals File become more widely available. Five of the 6 studies estimating Australian intergenerational earnings elasticities have been published in the past 3 years; all rely on these data.
On balance, the Australian data story is a positive one. We have several data sets—HILDA, TDS, Journeys Home, the Longitudinal Survey of Australian Children—which are both world-class and informative about intergenerational disadvantage in Australia. A lot of progress will continue to be made in the future by analysing these data. At the same time, investigating intergenerational disadvantage is methodologically challenging and data intensive. There is little doubt that access to richer and more varied data sources has afforded countries such as the United States and the United Kingdom with a much deeper understanding of intergenerational disadvantage than exists in Australia (see Perales et al. 2014).

In particular, while the international literature has begun to make strides in isolating causation from correlation using random (exogenous) variation in policy rules or administrative arrangements (see, for example, Dahl & Giesen 2018; Dahl et al. 2014; Edmark & Hanspers 2015; Hartley et al. 2017), this is yet to be done in Australia. The Australian evidence to date is strictly correlational. This limitation must be overcome. Correlational evidence is useful in telling us where to look for policy solutions; causal evidence is needed to tell us what those solutions in fact are. Linking administrative data sources like the TDS and ATO Australian Longitudinal Individuals File with data on program participation raises the possibility of establishing causality in a cost-effective way using quasi-experimental methods.

Importantly, we must remember that a positive intergenerational correlation in welfare receipt does not imply that poor children would have been better off had their parents not received social assistance. Intergenerational welfare correlations confound the beneficial effects of having additional financial resources with the harmful effects of the socioeconomic disadvantage that led to a need for welfare in the first place. Once children in welfare-reliant households are compared with equally disadvantaged children whose families did not receive welfare, there is little evidence that parental social assistance has a detrimental effect on children (Levine & Zimmerman 2005). Similarly, Cobb-Clark and others (2017) find that long-term exposure to social assistance as a child does not have the compounding effects on youth disadvantage that we might expect if there were a widespread welfare culture in Australia in which disadvantage is increasingly entrenched.

Finally, poor children experience a range of adult outcomes. ‘There is nothing inevitable about socio-economic advantage or disadvantage being passed from one generation to another’ (OECD 2018:17). Institutions are important in shaping intergenerational disadvantage. Families, labour markets, public policy and the broader national context all interact to drive the extent to which children’s opportunities and outcomes depend on their family background (Corak 2013). The way that social and economic policy is designed, delivered and paid for, all matter for intergenerational mobility (d’Addio 2007; Fairbrother & Mahadevan 2016; Solon 2004; Whiteford 2015). It is crucial to translate the Australian evidence on intergenerational disadvantage into effective policy design.
Acknowledgments

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1 For excellent reviews of the international research on the intergenerational transmission of socioeconomic status see Solon (1999, 2002); Corak (2006); d’Addio (2007); and Black and Devereux (2011).

2 The imputation of fathers’ earnings introduces measurement error which subjects estimates to attenuation bias, i.e., biases them towards zero.

3 Murray and others (2017) also compute rank correlation, which helps mitigate sample selection problems as negative and zero incomes can be included in the analysis.

4 For reviews of the literature on intergenerational welfare receipt, see Moffitt (1992); Page (2004); and Black and Devereux (2011). For reviews of the Australian literature on intergenerational welfare receipt, see Penman (2006) and Perales and others (2014).
Table 2.1: Comparison of the Australian studies on income (earnings) persistence

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<th>Paper</th>
<th>Data</th>
<th>Empirical strategy</th>
<th>Results</th>
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2. *Sample*: Employed men with reported earnings, aged 25–54. | 1. *Imputation*: Father’s hourly earnings are imputed using the predicted hourly earnings of a 40 year old with the same occupation.  
2. *Intergenerational elasticity* (IGE): Ordinary least squares (OLS) regression of son’s hourly earnings (log) on father’s imputed hourly earnings (log) and control variables is used to estimate IGE. IGE is coefficient on imputed father’s earnings. | 1. *Preferred estimate*: 0.2–0.3 if true US IGE is 0.4–0.6.  
2. *US comparison*: 0.181 (Australia, 2004) versus 0.325 (US, 2001). Result suggests intergenerational earnings mobility is higher in Australia. |
2. *Pooled estimates*: 0.227 (Australia unadjusted), 0.350 (Australia adjusted), 0.306 (US estimate). |
### Table 2.1 (continued): Comparison of the Australian studies on income (earnings) persistence

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<th>Paper</th>
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2. *Samples*: Individuals aged 30–54 with positive weekly earnings in their primary source of income. The samples are divided by gender. | 1. *Imputation*: Mother/father earnings are imputed using a similar method to Leigh (2007). Key difference is that earnings are measured as 13-year average hourly wages to account for transitory fluctuations.  
a. Son–father: 0.202  
b. Son–mother: 0.160  
c. Daughter–father: 0.081  
d. Daughter–mother: 0.151. |
2. *Sample*: Employed men aged 30–54 with positive earnings and report analytical variables. | 1. *Imputation*: Coefficients from between effects model are used to predict father’s earnings. Father’s age when son is 14 is used rather than assume age 40. Such specification attempts to minimise measurement error problems.  
2. *IGE*: Estimated using a random effects model that includes father’s and son’s age (centred at 40) as controls. Also estimates IGE based on weekly and annual earnings; deemed less reliable as cannot control for hours worked. | 1. *Preferred estimates*: 0.24–0.28 IGE for Australia.  
2. *Different earnings measures*:  
a. Hourly IGE range: 0.24–0.28  
b. Weekly IGE range: 0.17–0.23  
c. Annual IGE range: 0.18–0.24. |
### Table 2.1 (continued): Comparison of the Australian studies on income (earnings) persistence

<table>
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<th>Paper</th>
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<th>Empirical strategy</th>
<th>Results</th>
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  a. IGE: 0.409 (gross household income, adjusted for attenuation bias)  
  b. Rank correlation: 0.273.  
  2. *Estimation based on hourly earnings*:  
    a. IGE: 0.096  
    b. Rank correlation: 0.151.  
    Authors suggest this is due to measurement error associated with obtaining parental earnings. |
|                              | 2. *Sample*: Data use 489 parent–child pairs. Direct use of parent–child pairs avoids measurement error problems associated with imputation. | 2. *Rank correlation*: OLS regression of child’s percentile rank in child income distribution on parent’s corresponding measure, parent’s age (quadratic) and child gender indicator. Allows for zero or negative income (IGE does not), which mitigates sample-selection problems. |                                                                       |
  a. IGE: 0.185 (individual total pre-tax income)  
  b. Rank correlation: 0.215.  
  2. *Regional estimates of intergenerational income mobility*: Authors find some regional differences in mobility. |
|                              | 2. *Sample*: People born between 1 July 1978 and 30 June 1982 who registered for a tax file number, remained resident in Australia through 2015 and could be matched to their parents (90%). | 2. *Rank correlation*: OLS regression of child’s percentile rank in child income distribution on parent’s corresponding measure. |                                                                       |
References


Income support over the past 20 years
Australia’s social security system aims to support people who cannot, or cannot fully, support themselves. It is an important part of the larger network of services and assistance provided by governments and non-government organisations to improve the wellbeing of Australians. Due to the considerable number of people who receive a social security payment at some point in their lives, it is considered a critical social institution of contemporary Australian society (The Treasury 2010; Whiteford 2018b).

Over the past 2 decades, there have been notable demographic, social and economic shifts and changes within the social security system on how payments have been administered that have influenced trends and patterns in the receipt of income support. It is important to understand these patterns and this article aims to do that by providing insights on trends in income support receipt in Australia for people aged 18–64 over the past 20 years (June 1999 to June 2018), in the context of changes in demographic structure, economic conditions and social security policies. This article does not include trends in government spending on welfare services and cash payments—see snapshot Welfare expenditure www.aihw.gov.au/reports/australias-welfare/welfare-expenditure.

The article is structured into the following sections:

• an overview of Australia’s social security system, including a description of the different types of income support payments
• key factors influencing trends in income support receipt
• quantifying the size and characteristics of the income support populations over the past 2 decades
• pathways through the income support system.

This article focuses on the subset of Australians receiving government welfare assistance to assist with the everyday costs of living, specifically Australians aged 18–64 who received 1 of the main income support payments—unemployment payments, parenting payments, Disability Support Pension (DSP) and Carer Payment. These payments have been shown to be associated with long-term income support receipt (Cobb-Clark et al. 2017).

The 18–64 age group has been chosen as it represents the primary section of Australia’s productive workforce. As there is no universal definition of the ‘working-age population’, the age range chosen for this article may differ from the definition of working age used in other contexts. From a policy perspective, for example, the definition can be informed by eligibility for Age Pension; as a result, the upper age limit has varied over time. Working age can also include adolescent years when work becomes legal. This younger age group has been intentionally excluded from the analysis in this article, due to considerable policy changes around teenagers accessing income support payments over the period of interest.
To present a complete picture of shifts in the types of income support payments accessed over the past 2 decades, information is also presented on student payments, Age Pension and closed payments (such as Wife Pension and Widow Allowance), where applicable. While student payments are generally viewed as having a positive effect on being engaged in the labour market and, accordingly, are often considered differently to other income support payments, they have been included to provide a comprehensive description of changes in how Australians aged 18–64 are accessing income support payments.

Australian social security payment policy is administered by the Department of Social Services (DSS) and income support payments are delivered by the Department of Human Services (DHS), through its network of Centrelink offices. There are 2 main data sources for analysing trends in income support receipt in Australia—survey data from the Australian Bureau of Statistics (ABS) and administrative data collected by the DHS and managed by the DSS. This article mainly uses the latter, sourced from the Research and Evaluation Database (RED)—a researchable longitudinal database constructed from DHS administrative income support data. RED captures data on anyone who has received a social security payment since 1 July 1998. Data from RED may differ from official statistics on income support payments and recipients, including income support data presented in the Australia’s welfare snapshots www.aihw.gov.au/australias-welfare/snapshots. Further, data in this article may also differ from ‘Chapter 4 Income support among working-age Indigenous Australians’ which uses Data Over Multiple Individual Occurrences (DOMINO), a newly developed longitudinal data source also constructed from DHS administrative income support data—see Chapter 4 for more information.

Overview of Australia’s social security system

The social security system aims to encourage self-reliance and provide for a minimum acceptable standard of living, with payments targeted to people who do not have the means to support themselves (Klapdor 2013a, 2013b). It provides payments to those unable to work or unable to find work, with additional payments for those who pay private rent and those with dependent children (Whiteford & Angenent 2002). Nearly all social security payments in Australia are means-tested; a formal process used to determine eligibility for payments. This ensures that payments are provided to support Australians with low or no income and/or few assets; that is, those who most need it. As income and/or assets increase, payment decreases. Some payments are also subject to activity tests; for example, to remain qualified for payment, recipients of unemployment payments are required to actively look and prepare for work in the future. As discussed later, the enhancement of these activity tests for particular payments have had a noticeable impact on trends in income support.
The Australian social security system is considered the most highly targeted to low-income earners compared with other high-income countries (Whiteford 2018a, 2018b). Australian households with the lowest fifth of income receive around 7 times as much in social security benefits as Australian households with the highest fifth of income (ABS 2018a; Whiteford 2018b). This differs considerably to the average for countries in the Organisation for Economic Co-operation and Development (OECD), where the lowest and highest income-earner households receive around the same amount (ABS 2018; Whiteford 2018b). Social security expenditure in Australia is low compared with other high-income countries in the OECD, reflecting differences in entitlement to social security in Australia, including the extent of income-testing (Whiteford 2017). As a proportion of gross domestic product (GDP) in 2015 (or the nearest year available), Australia was the sixth lowest spender on cash benefits of 35 OECD countries (9.0% compared with OECD average of 11.1%). English-speaking countries tend to be relatively low spenders on social security benefits (9.0%–10.3%) compared with many European countries (16% in Spain, increasing to 19%–20% in France, Greece and Italy—OECD 2018b; Whiteford 2017).

**What are income support payments?**

Not all financial support provided through the social security system is considered an income support payment. Benefits classified as income support payments are those that generally serve as a recipient’s primary source of income and are regular payments that assist with the day-to-day cost of living. Individuals can receive only 1 income support payment at a time.

There are currently 18 specific income support and related payments (4 of which are closed to new entrants), with the 6 main categories and associated payments being:

- student payments—Youth Allowance (Student), Austudy and ABSTUDY
- unemployment payments—Newstart Allowance, Youth Allowance (Other) and Special Benefit (Newstart conditions)
- parenting payments—Parenting Payment Single and Parenting Payment Partnered
- DSP
- Carer Payment
- Age Pension.
Two additional categories have been used for analysis in this article:

- closed payments—payments that are largely closed to new recipients but still paid to existing recipients (including Widow Allowance and Wife Pension) and closed payments that have been phased out and are not currently paid to any recipients (including Newstart Mature Age Allowance and Mature Age Allowance)
- other payments—income support payments that do not otherwise fit in the categories above, including Special Benefit (Other), Bereavement Allowance and Sickness Allowance.

Further information on these main income support payments is included in the following Australia’s welfare snapshots: www.aihw.gov.au/australias-welfare/snapshots:

- Unemployment and parenting income support payments
- Disability Support Pension and Carer Payment
- Income support payments for older people.

Other payments available through the social security system include: payments that are designed to assist families with the cost of raising children, such as Family Tax Benefit—see snapshot Family assistance payments www.aihw.gov.au/reports/australias-welfare/family-assistance-payments; supplementary payments for carers, such as Carer Allowance and Carer Supplement; and Rent Assistance. These payments can provide additional financial assistance to both income support recipients as well as others in need of support. In addition, a separate set of income support payments is available to older veterans and veterans with disability, administered by the Department of Veterans’ Affairs. These payments are not included in this analysis.

All income support payments listed above, other than Age Pension, are available to people below Age Pension age who meet eligibility requirements, and are the focus of this article. It should also be noted that as at June 2018, there were around 141,000 recipients aged 65 and over who were receiving an income support payment other than Age Pension. Of these, the vast majority (85%) were receiving DSP or Carer Payment. These recipients are excluded from this analysis.

The social security system supports a substantial proportion of the Australian population. In any 1 fortnight in 2018, an income support payment (the specific subset of social security payments outlined above) was paid to about 5 million Australians, and around a further 855,000 families received family tax benefits (Whiteford 2018c).
Factors influencing trends in income support

Over the past 2 decades, there have been notable demographic, social and economic changes that have influenced (and will continue to influence) the social security system, and in particular the characteristics of income support recipients over that period. Some key examples include:

• **Australia’s population is growing and ageing.** The Australian population has grown by 33% from 18.8 million in 1999 to an estimated 25 million in 2018, with the 65 and over age group experiencing the fastest growth (ABS 2018a). This age group accounted for 12% of the population in 1999, 17% in 2018 and is projected to account for 20% of Australians by 2066. On the other hand, the 18–64 population as a proportion of the total population has remained relatively stable at around 62%–64% (ABS 2000, 2018a).

• **Australians are living longer and working longer.** Australians are living longer, with average life expectancy continuing to increase. A male born in 2014–2016 will live, on average, an extra 3.4 years than a male born in 1999–2001 (from 77.0 to 80.4 years), and females an extra 2.2 years (from 82.4 to 84.6 years) (ABS 2004; AIHW 2018). Australians are also working longer. Between 2000 and 2017, the average effective age of retirement increased by 3.6 years for men (from 62.0 to 65.6 years) and by 4.6 years for women (from 59.6 to 64.2 years) (OECD 2018a).

• **There are more Australians with disability and more informal carers.** The number of people with disability has risen over the past 15 years from 4.0 million in 2003 to 4.3 million in 2015; however, the proportion of the population with disability has declined slightly over this period, from 20% to 18%. The growth in informal carers (those caring for a person with disability or an older person) has almost doubled over this period, from 474,600 to 855,900 between 2003 and 2015, or from 2.4% to 3.7% of the population, according to data from the ABS Survey of Disability, Ageing and Carers (ABS 2016).

• **Australian households are changing.** Australian household structure has changed over recent decades. For example, over the 20 years to 2016, the proportion of single or lone person households increased slightly (from 22% to 24% between 1996 and 2016) (ABS 1998, 2018b).

• **More Australians have a job.** Over the past 2 decades, there has been an overall increase in the proportion of the Australian population aged 15–64 that have a job (referred to as the employment to population ratio), although the ratio has fluctuated somewhat over this period. Ratios increased from 68% in June 1999, reaching a peak of 73% in June 2008, and have remained around 72%–74% since that time (ABS 2018c).
• **More Australians are working part-time.** More employed people aged 20–64 are working part-time (employed persons who usually work less than 35 hours a week). The proportion of employed women who work part-time has risen from about 40% in 1999 to 43% in 2018. Employed men have much lower rates of part-time work; however, the rates have grown more dramatically, from 9% to 15% over this period (ABS 2018c). With the part-time share of the employment market continuing to rise, it is more likely that an unemployed person will find part-time employment than previously (Cassidy & Parsons 2017).

**Policy drivers**

Over the past 20 years, there have been significant reforms to the social security system that have influenced trends in income support payments and recipients. The demographic, social and economic environmental factors outlined above can also lead to policy changes, as can other policy changes in the broader Australian context, such as taxation and education policies and targeted population policies, such as the National Disability Insurance Scheme (NDIS).

Some major reforms in the social security system have resulted in a reduction in the types of payments available. The broader policy context has also changed with the introduction of an investment approach to Australia’s social security system. The investment approach looks to prevent long-term income support dependence through early intervention and targeted investment (Reference Group on Welfare Reform 2015). States and territories are also developing investment approaches to welfare reform and service delivery—such as the New South Wales Government’s Their Future Matters (Taylor Fry 2018)—which have the potential to influence future income support receipt and dependence. Other policy changes that have had an impact include the Welfare to Work reforms, which increased the number and range of recipients who were required to look for work and accept suitable employment offers (Thomas & Daniels 2010). Further, the enhancement of mutual obligations (see Box 3.1) also had a noticeable impact on trends in income support payments. Key policy changes are summarised in Box 3.1.
Box 3.1: Key changes to income support eligibility

A simpler social security system

One of the key changes in the social policy context includes working towards a simpler social security system (Reference Group on Welfare Reform 2015). This, together with a move to require participants to have an active engagement with work or study, and social changes regarding participation of women in the workforce, has resulted in a reduction in the types of income support payments available to recipients, such as Age Pension to women under 65, and payments to partners, the mature aged and some widows.

Age Pension

As Australians are living longer and healthier lives, older Australians will place an increased demand on government assistance and Age Pension in particular. Policy changes have been made to achieve sustainability of the Age Pension system, including the incremental increase in eligibility age.

The qualifying age for the Australian Age Pension for women increased from 60 in 1995 at the rate of 6 months every 2 years and reached 65 in 2014—the same qualifying age as for men. From 1 July 2017, the pension qualifying age for men and women started rising again by 6 months every 2 years from 65 until it reaches 67 in 2023.

This policy change increases revenue through taxpayers contributing for longer and reduces expenditure by delaying entry to Age Pension (Klapdor 2014a). However, those who are unable to work prior to reaching Age Pension age might still be eligible for alternative income support payments, such as DSP, Carer Payment or Newstart Allowance.

Disability Support Pension

The eligibility criteria for DSP have been tightened over recent years (DSS 2018). For example, the criterion of being unable to work 30 hours per week decreased to 15 hours per week from 2006. A new category for the unemployment payment Newstart Allowance was created for those with a work capacity of less than 30 hours per week; Newstart Partial Capacity to Work. Another change occurred in 2012 with the introduction of significantly revised impairment tables.

continued
Box 3.1 (continued): Key changes to income support eligibility

Parenting payments
Changes to the eligibility criteria for parenting payments were influenced by the Welfare to Work reforms, with a new requirement to look for, or be engaged in, work once the youngest child reached 6 years old if partnered or 8 if single. From 2006, all new parenting payment recipients with school-age children over these ages were only eligible for Newstart Allowance, an unemployment payment, rather than for a parenting payment. Further changes were made in 2013 where, regardless of when payment commenced, recipients could only receive parenting payments until their youngest child turned 8 for single recipients and 6 for partnered recipients.

Closure of partner and mature age payments
A number of policy changes have been directed towards encouraging mature age adults (those aged 50–64) to participate in employment, such as the Australians Working Together reforms announced in the 2001–02 Budget. This package of reforms was designed to address issues faced by mature age workers and encourage involvement in the job market and community among income support recipients aged 50 and over (Australian Government 2001). From 2003, entry to payments that did not require recipients to look for work or take part in the community, such as Partner Allowance and Mature Age Allowance, were closed to new recipients. From 1 July 1995, Wife Pension (for women whose partner received Age Pension or DSP) was closed to new recipients.

Mutual obligations
Activity testing—that is, a requirement that recipients engage in activity of some kind to remain eligible for certain income support payments—has been in place since unemployment payments began many decades ago. The enhancement of these activity tests in recent decades, including mutual obligation requirements, has influenced trends in income support receipt.

Mutual obligations are designed to ensure unemployed people receiving activity-tested income support payments are actively looking for work and participating in activities that will assist them into employment (Australian Government 2019). Mutual obligation requirements differ depending on the recipient’s age, assessed work capacity and whether they are the primary carer of a dependent child. Examples of mutual obligation requirements include accepting offers of suitable paid work, job search, attending appointments with employment services providers, and participating in approved education or training courses or programs.
How has income support as the main source of income changed over time?

Over the past 2 decades, there has been a notable decline in income support receipt among people aged 18–64 in Australia.

According to AIHW analysis of the 2014 ABS General Social Survey, an estimated 1 in 6 (17%) people aged 18–64 had government pensions and allowances as their main source of income, down from 18% in 2010, 19% in 2006 and 22% in 2002. Women were more likely than men to receive government pensions and allowances as their main source of income (22% compared with 12%, respectively) in 2014.

Another way to track trends in government pensions and allowances is to use income support administrative data, which provides estimates on income support receipt that are comparable to the General Social Survey. The decline in income support receipt over the past 2 decades among the population aged 18–64 is consistent in both data sources. The remainder of this article is based on DHS administrative income support data from the RED.

How many people aged 18–64 have received income support over time?

This section presents data on income support recipient characteristics as a percentage of the broader population aged 18–64.

The number of Australians aged 18–64 receiving income support at a point in time decreased from 2.6 million in 1999 to 2.3 million in 2018. This 11% decline in the number of income support recipients has been despite increases in the growth of the population aged 18–64 over this period (32% increase). As a result, there has been a general downward trend in the proportion of the population aged 18–64 receiving income support payments, from 22% in 1999 to 15% in 2018.

Types of payments

The overall decline in income support receipt for the population aged 18–64 was also observed for unemployment payments—falling from 6.1% of the population aged 18–64 in 1999 to a low of 3.4% in 2008, rising to 5.9% in 2015 and falling since then to 5.3% in 2018—and for parenting payments, declining from 5.1% to 2.1% of the population aged 18–64 (Figure 3.1). These declines may in part reflect labour market conditions as well as reforms to the social security system over this period, as discussed previously.
The proportion of the population aged 18–64 receiving DSP remained relatively stable between 1999 and 2018; however, there were some fluctuations during this period, with proportions increasing gradually between 1999 and 2011 (from 4.8% to 5.6%) and declining thereafter to 4.4% in 2018. This decline may be influenced by changes in eligibility criteria for DSP, as well as declines in the proportion of the population with disability.

In contrast to other payment categories, there was a notable increase in the proportion of the population receiving Carer Payment from 1999 to 2018 (from 0.3% to 1.5%). This increase was potentially influenced by the large increase in the number of informal carers over this period as well as key policy changes, including the increased eligibility age for Age Pension, and closure of various partner payments and allowances that were primarily paid to women. As a result, there has been a larger increase in the proportion of Carer Payment recipients for women than men, as discussed in more detail later.

If receipt of income support payments had remained at the same level as in 1999, there would have been around 1.1 million additional 18–64 year olds receiving an income support payment in 2018.

Figure 3.1: Proportion of people aged 18–64 receiving income support payments, by payment category, June 1999 to June 2018

Source: AIHW analysis of Research and Evaluation Database (RED), constructed from DHS administrative income support data.
**Sex**

In 2018, women aged 18–64 were overall more likely than men to be receiving income support payments (17% compared with 13%, respectively). This gender gap has remained relatively consistent over the past 20 years. However, when looking at specific payments, the gender gap over the 20-year period has increased for some payments (such as Carer Payment) and declined for others (such as unemployment payments and DSP). For example, in 2018, women were 2.4 times as likely as men to receive Carer Payment, up from 1.4 times as likely in 1999. For unemployment payments, the proportions in 2018 were relatively similar for men and women, compared with 1999 when men were 2.3 times as likely as women to be receiving these payments.

**Age**

The age distribution of income support recipients aged 18–64 over the past 20 years remained relatively unchanged, skewed towards the older and younger age groups. The proportion of income support recipients aged 18–24 was 18% in 1999 and 19% in 2018, and the proportion aged 60–64 was 15% in 1999 and 13% in 2018. In both 1999 and 2018, the proportion of income support recipients in each five-year age group between 25–29 and 55–59 were between 8% and 11%.

A notable difference between 1999 and 2018 is that the proportion of the total Australian population aged 60–64 receiving income support payments was more than twice as high in 1999 compared with 2018 (51% compared with 22%, respectively). This partly reflects women in this age group qualifying for Age Pension in 1999, but not in 2018.

**What are the characteristics of income support recipients aged 18–64?**


The income support system has changed considerably over the past 20 years, and the characteristics of income support recipients aged 18–64 have also shifted over this period, as illustrated in Table 3.1. This section examines these shifts in relation to the main income support payment categories. Due to differences in how the social security system is accessed across the population, analysis is split by key life stages and sex. Where possible, these patterns and trends are discussed in the context of key demographic, social, economic and policy changes over the past 2 decades.
In June 1999, recipients aged 18–64 accounted for 60% of income support recipients with the remaining 40% of recipients aged under 18 or 65 and over. The proportion of all income support recipients aged 18–64 decreased to 47% by June 2018. The age and sex distribution of income support recipients aged 18–64 has remained relatively stable between 1999 and 2018 (Table 3.1). However, there has been a notable increase in the proportion of recipients who are single, reflecting the changing household structures discussed earlier. There have also been considerable shifts in the types of income support payments received; in particular, increases in the proportion of income support recipients receiving unemployment payments, DSP and Carer Payment and declines in the proportion receiving parenting payments, reflecting the policy changes referred to previously.

Table 3.1: Characteristics of income support recipients aged 18–64, as at June 1999, June 2009 and June 2018

<table>
<thead>
<tr>
<th></th>
<th>Proportion of income support recipients aged 18–64 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1999</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>58.3</td>
</tr>
<tr>
<td>Men</td>
<td>41.7</td>
</tr>
<tr>
<td>Age group</td>
<td></td>
</tr>
<tr>
<td>18–24</td>
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</tr>
<tr>
<td>25–49</td>
<td>48.4</td>
</tr>
<tr>
<td>50–64</td>
<td>33.6</td>
</tr>
<tr>
<td>Payment category</td>
<td></td>
</tr>
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<td>Student payments</td>
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</tr>
<tr>
<td>Unemployment payments</td>
<td>27.4</td>
</tr>
<tr>
<td>Parenting payments</td>
<td>23.1</td>
</tr>
<tr>
<td>Disability Support Pension</td>
<td>21.9</td>
</tr>
<tr>
<td>Carer Payment</td>
<td>1.6</td>
</tr>
<tr>
<td>Age Pension</td>
<td>7.2</td>
</tr>
<tr>
<td>Closed payments</td>
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</tr>
<tr>
<td>Other payments</td>
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</tr>
<tr>
<td>Partnership status</td>
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</tr>
<tr>
<td>Single</td>
<td>60.1</td>
</tr>
<tr>
<td>Partnered</td>
<td>39.9</td>
</tr>
</tbody>
</table>

Note: Components may not add to totals due to rounding.

Source: AIHW analysis of Research and Evaluation Database (RED), constructed from DHS administrative income support data.
Types of payments

Figure 3.2 shows that, over the past 20 years, there have been notable shifts in the receipt of specific income support payments (Table 3.1), reflecting key policy changes (see Box 3.1 for further details).

Unemployment payments account for a considerable proportion of the income support population aged 18–64 (35% in 2018), with increases evident in relation to labour market conditions as well as changes in policies around parenting payments. In particular, a corresponding decrease in the proportion of recipients receiving parenting payments aligns with an increase in the proportion of recipients receiving unemployment payments. The closure of various payments and increases in eligibility age for Age Pension are also reflected in the decreasing proportions of people aged 18–64 in receipt of these payments, to nearly zero over the 20-year period. There have also been corresponding increases in the proportions receiving DSP and Carer Payment (Figure 3.2).

Figure 3.2: Proportion of income support recipients aged 18–64, by payment category, June 1999 to June 2018

Source: AIHW analysis of Research and Evaluation Database (RED), constructed from DHS administrative income support data.
Sex

There are differences in the types of income support received by men and women aged 18–64. In 2018, among income support recipients, a larger proportion of men than women received unemployment payments or DSP (43% and 37% for men compared with 30% and 23% for women, respectively). In contrast, women were more likely to receive a parenting payment or Carer Payment (23% and 12% for women compared with 2.2% and 7.0% for men, respectively).

However, there are similarities between men and women in trends in the types of income support received across the past 20 years. Perhaps most noticeable is the rise between June 2008 and 2018 in the proportion receiving unemployment payments for both men and women (33% to 43% for men and 14% to 30% for women), indicative of labour market conditions.

The changes in parenting payment policies (see Box 3.1) in 2006 and 2013, which saw recipients move to an unemployment payment when their youngest child reached a certain age, may also play a role here. The increase in the proportion of the income support population receiving unemployment payments was more pronounced for women than men, and with a corresponding decrease in the proportion of parenting payments (13 percentage point increase in unemployment payments and corresponding 15 percentage point decline in parenting payments for women between 1999 and 2018). Similarly, the proportion of men receiving parental payments also decreased (from 5.0% to 2.1% between June 2008 and 2018).

Among income support recipients, the proportion of men receiving student payments remained slightly higher than the proportion of women between 1999 and 2018 (9.4% for men and 7.4% for women in 1999; 11% for men and 10% for women in 2018).

Among women who receive income support, there was a large increase in the proportion in receipt of DSP between 1999 and 2012 (from 13% to 26%), however, proportions have been declining in recent years to 23% in 2018, in line with policy changes. The rates for men increased steadily, peaking in 2008 (46%), before decreasing to 37% in 2015 and remaining between 36% and 37% to 2018.

The large impact on women of increasing Age Pension eligibility age and closing various payments is also apparent, as closed payments accounted for 12% of women receiving income support in 1999, reducing to almost zero by 2018 (Figure 3.3).
Figure 3.3: Proportion of income support recipients aged 18–64, by sex and payment category, June 1999 to June 2018

Per cent

Women

Men

Source: AIHW analysis of Research and Evaluation Database (RED), constructed from DHS administrative income support data.
Age

The age distribution of income support recipients aged 18–64 over the past 2 decades has remained relatively unchanged. In both 1999 and 2018, almost one-fifth (18%–19%) of recipients were aged 18–24, almost half (48%) were aged 25–49, and one-third (34%–33%) aged 50–64 (Table 3.1).

Policy changes over this period discussed earlier are further apparent when comparing the June 1999 and June 2018 recipient profiles by age group, sex and payment category (Figure 3.4). The change in parenting payment policies is seen with decreasing proportions of recipients receiving parenting payments and corresponding increase in the proportion receiving unemployment payments between 1999 and 2018. This pattern is particularly pronounced for women, who account for more than 90% of parenting payment recipients. The change in Age Pension qualifying age corresponded with no women aged 18–64 receiving Age Pension in 2018 compared with around 12% in 1999. This is particularly evident for women aged 60–64 for whom the proportion was 80% in 1999. Employment and community participation encouragement of mature age adults is also evident, with less than 1% of recipients receiving closed payments (see Box 3.1) among both men and women in 2018, compared with 9% of recipients receiving these payments in 1999.
Figure 3.4: Proportion of income support recipients aged 18–64, by sex, age and payment category, as at June 1999 and June 2018

Source: AIHW analysis of Research and Evaluation Database (RED), constructed from DHS administrative income support data.
Life stages by sex

Australians aged 18–64 access different income support payments at different stages of life, and these patterns have changed over time, as well as varying for men and women as shown in Figure 3.5:

• 18–24:
  – In 1999, men were 1.6 times as likely to receive unemployment payments as student payments (56% compared with 35%), with proportions converging over the past 20 years resulting in similar proportions for these payments in 2018 (42%).
  – The pattern for women shows a different story, with proportions for student payments (36%), parenting payments (29%) and unemployment payments (30%) relatively similar in 1999 but then diverging. In 2018, the proportion receiving student payments increased to 44%, parenting payments declined to 21% and unemployment payments fluctuated but remained similar to 1999 (27%).

• 25–49:
  – Men most commonly received unemployment payments and DSP. Over the past 20 years, the proportion of men receiving unemployment payments declined (from 58% in 1999 to 49% in 2018) and DSP increased (from 26% to 33%).
  – Women, on the other hand, were more likely to receive parenting payments and unemployment payments, and the proportion of women receiving these payments were 37% and 29% in 2018, respectively. By contrast, in 1999, women were 4 times as likely to be receiving parenting payments as unemployment payments. In the 20 years to 2018, the proportion receiving parenting payments had fallen considerably (from 63% to 37%), corresponding to increases in the proportion receiving unemployment payments (from 15% to 29%). This largely reflects changes in parenting payment policies that saw recipients move to an unemployment payment when their youngest child reached a certain age, as discussed previously.
• 50–64:
  - Men most commonly received DSP and unemployment payments. Since 2009, the proportion receiving DSP has declined sharply (from 66% in 2009 to 54% in 2018), corresponding with a notable increase in those receiving unemployment payments (from 19% in 2004 to 34% in 2018). In 1999, men in this age group were 2.7 times as likely to receive DSP as unemployment payments, declining to 1.6 times in 2018.
  - The trend for women shows a very different pattern, largely due to changes in the eligibility for Age Pension and large increases in the receipt of Carer Payment in recent years. In 1999, the most common payments were Age Pension (36%), closed payments (33%) and DSP (19%). Declining proportions receiving Age Pension and closed payments have corresponded with increasing proportions receiving DSP (from 19% in 1999 to 43% in 2018), unemployment payments (from 5.9% in 1999 to 33% in 2018) and Carer Payment (from 2.2% in 1999 to 19% in 2018).

There has been substantial consolidation in the payments provided to mature age adults (50–64) over the previous 2 decades, as reflected in the considerable shifts in the types of income support received described above. Between 1999 and 2018, the proportion of mature age income support recipients receiving Newstart Allowance, Carers Payment or DSP increased substantially (from 50% in 1999 to 96% in 2018).

This change over time may reflect a number of policy changes directed towards encouraging mature age adults to participate in employment, such as the Australians Working Together (A Fair Go For Mature Age Workers) reforms (see Box 3.1). It included cessation of the Mature Age Allowance and Partner Allowance from 1 July 2003, participation planning for Widow Allowance recipients and flexible participation requirements for mature age Newstart recipients, among other reforms.
Figure 3.5: Proportion of income support recipients aged 18–64, by sex, age and payment category, June 1999 to June 2018

Source: AIHW analysis of Research and Evaluation Database (RED), constructed from DHS administrative income support data.
Partner status

The demographic influence of changes in household and partner structures, as well as policy changes, is evident when looking at the partner status of income support recipients, particularly in the mature age (50–64) group. In 1999, 39% of mature age recipients were single, increasing to 66% by 2018 (Figure 3.6).

![Figure 3.6: Proportion of income support recipients aged 18–64, by age and partner status, as at June 1999 and June 2018](image)

Source: AIHW analysis of Research and Evaluation Database (RED), constructed from DHS administrative income support data.

The large shift in partnered status for mature age recipients may also be influenced by the closure of various partner payments, as well as the rise in Age Pension age for women (see Box 3.1). From 2003, payments that were previously available on the basis of being the partner of an income support recipient, were largely closed to new entrants. This meant that partners of an income support recipient were required to demonstrate their own eligibility for a payment.
Duration

A significant share of people who receive unemployment payments will only receive them for relatively short periods. One way to measure this is to follow individuals after they start receiving payments to observe how quickly they exit. While such analysis is possible using income support data, it has not been done in this article due to time and data constraints. Instead, the analysis focuses on the length of time that income support recipients have been in receipt of payments at a point in time. While this approach is common in this type of cross-sectional data, it may be biased upward as people who stay on payments for longer periods are more likely to be in receipt of payments on a given date than those who stay on payments for short periods (meaning that long spells are over-represented). On the other hand, the data are also biased downward, because duration is calculated only part way through a benefit spell (Wilson 1999).

In 2018, almost 3 in 4 (72%) income support recipients aged 18–64 years had been on a payment for 2 or more years, a further 11% for between 1 and less than 2 years and 17% for less than 1 year. Individuals receiving DSP, Carer Payment or parenting payments tend to be long-term income support recipients—95% of DSP recipients, 85% of Carer Payment recipients and 75% of parenting payment recipients had been on income support for 2 or more years. This compares with around 59% of recipients on unemployment payments. In particular, those on unemployment payments tend to stay on the payment for relatively short periods and were far more likely to remain on the payment for less than 1 year than recipients receiving other payments (26% compared with 13% for parenting payments, 7.6% for Carer Payment and 2.1% for DSP in 2018).

The proportion of recipients on income support for 2 or more years increased over the 20 years to 2018, from 61% to 72%. An increase was observed across all the main income support payments discussed in this article.

The increase in duration for unemployment payment recipients (from 40% to 59% on income support for 2 or more years between 1999 and 2018) may be influenced by changes to DSP policies, mentioned earlier. Previously, recipients who are now eligible for Newstart Partial Capacity to Work may have been eligible for DSP (Handel et al. 2013). This change may then have flow-on effects for duration, as only 13% of Newstart Partial Capacity to Work recipients on income support in 2017 exited during the following 12 months compared with around 32% of Newstart recipients who have full-time capacity to work.
What are the pathways through the income support system?

Understanding the movement of income support recipients between different payment categories and on and off income support provides insights into the income support pathways of Australians aged 18–64 through the system. The RED, constructed from DHS administrative income support data, is ideally suited for pathways analysis.

To investigate these transitions, individuals aged 25–49 who received income support payments as at June 2009 were tracked through the data to investigate what income support payment (if any) they were receiving 9 years prior (2000) or 9 years after (2018). Note this analysis does not capture all the changes over this period, but rather it only captures the payment an individual was on at the 3 measurement points. The analysis has been restricted to those aged 25–49 years in 2009, given that nearly all recipients (99.6%) aged 18–24 in 2009 were not on income support in 2000 as they were too young to be receiving a payment and almost 1 in 2 (48%) aged 50–64 in 2009 were receiving Age Pension in 2018. Figure 3.7 shows the most common pathways for the 2009 cohort aged 25–49.

Of the 1.1 million income support-recipients aged 25–49 in 2009, the vast majority (90%) of the cohort were receiving 1 of 3 income support payment categories in 2009—unemployment payments (30%), parenting payments (34%) and DSP (26%). Most of the cohort were receiving an income support payment 9 years earlier in 2000 (56%) and 9 years later in 2018 (64%). A further 3.9% had died before 2018.

Around 1 in 3 recipients (34%) in 2009 were receiving an income support payment of the same category 9 years earlier in 2000. DSP recipients were more likely than other recipients to be receiving the same income support payment 9 years earlier in 2000—45% of recipients received DSP in 2000 and 2009. This compares with 37% of parenting payment recipients and 28% of unemployment payment recipients receiving the same payment category in 2000 and 2009.

Looking ahead 9 years from 2009 to 2018, a slightly larger proportion of recipients aged 25–49 (37%) were receiving an income support payment of the same category in both 2009 and 2018, compared with 2000 and 2009 (34%). DSP recipients were most likely to be receiving the same payment, with around 8 in 10 (84%) recipients in 2009 receiving DSP again in 2018. Just over half of Carer Payment recipients in 2009 (52%) were receiving Carer Payment 9 years later, and 29% of unemployment payment recipients in 2009 were also receiving unemployment payments in 2018. As noted above, this reflects that DSP and Carer Payment recipients tend to be long-term income support recipients, while those on unemployment payments tend to be on the payment for shorter periods of time.
Recipients sometimes transition to different income support payments. Of the 2009 cohort aged 25–49, almost 1 in 4 were receiving a different income support payment 9 years earlier in 2000 (23%) and 9 years later in 2018 (23%).

- Just over 1 in 2 (52%) Carer Payment recipients in 2009 were receiving an income support payment of a different category in 2000—32% were receiving a parenting payment and 16% were receiving unemployment payments in 2000.

- Parenting payment recipients in 2009 had the largest proportion of recipients (40%) receiving a different income support payment in 2018, with almost 1 in 4 (24%) receiving unemployment payments in 2018.

**Figure 3.7: Most common movements of the 2009 cohort aged 25–49 between payment categories, 9 years before (2000) and 9 years after (2018)**

Source: AIHW analysis of Research and Evaluation Database (RED), constructed from DHS administrative income support data.
Next steps

Income support data are considered the most comprehensive source of welfare data in Australia. This article demonstrates its value by describing key changes and shifts in the receipt of income support payments over the past 2 decades. It also places these trends in context with changes in demographic structure, economic conditions and social security policies. The AIHW is enhancing and expanding its use of income support data to fill information gaps and provide a deeper understanding of how certain cohorts—in particular disadvantaged and vulnerable populations—interact with the income support system. See Box 1.1 in ‘Chapter 1 An overview of Australia’s welfare’ for examples of linkage projects involving income support data. The AIHW will continue to work with the DSS and other partners to enhance the use of income support data in achieving a better understanding of health and welfare experiences and outcomes for Australians.
References


Income support among working-age Indigenous Australians
Adequate and reliable income allows a person to support themselves, their family and their community. While a person's wellbeing is influenced by many factors—such as health, social connectedness and family functioning—adequate levels of income remain an essential component in the measurement of individual and household wellbeing (McLachlan et al. 2013; SCARC 2004). Income support by governments assists people to build capacity for self-reliance and independence.

To date, most research into Indigenous Australian income support recipients is cross-sectional using the Australian Bureau of Statistics (ABS) National Aboriginal and Torres Strait Islander Social Survey and National Aboriginal and Torres Strait Islander Health Survey (AIHW 2015:Section 7.1; SCRGSP 2016).

National-level longitudinal survey data, such as the Household, Income and Labour Dynamics in Australia (HILDA) Survey (Wilkins & Lass 2018), as well as other longitudinal studies that include data on income support, such as Youth in Focus (Cobb-Clark & Gørgens 2009) and the Longitudinal Study of Australian Children (AIFS 2015), do not focus on Indigenous Australians as generally the Indigenous sample is not very large.

There have been some longitudinal analyses that focus on Indigenous Australians on income support undertaken at the community level (Daly et al. 2002) and on the impacts of income support on child outcomes through the Longitudinal Study on Indigenous Children (DSS 2015) but information on reliance on income support over time is limited.

This article presents new analyses from the Department of Social Services (DSS) Data Over Multiple Individual Occurrences (DOMINO)—see Box 4.1. Data from DOMINO may differ from official statistics on income support payments and recipients, including income support data presented in the Australia's welfare snapshots www.aihw.gov.au/australias-welfare/snapshots. Further, data in this article may also differ from ‘Chapter 3 Income support over the past 20 years’ which uses the DSS Research and Evaluation Database (RED)—see Chapter 3 for more information. RED was not used here because some non-income support variables in DOMINO were not available.
Box 4.1: Income support administrative data used in this article

Australian social security payment policy is administered by the DSS and income support payments are delivered by the Department of Human Services (DHS), through its network of Centrelink offices. The DSS manages income support administrative data collected by the DHS. These data are used for research and statistics, service delivery and compliance.

Different types of income support administrative data sets are produced to meet different user needs. In this article, the following DSS data sources have been used for reporting:

- **Blue Book dataset** contains annual point-in-time income support data and is a source of official statistics on income support payments and recipients. It is used to present introductory contextual information and is referenced as ‘DSS (2016)’.

- **Data Over Multiple Individual Occurrences (DOMINO)** contains event-based data on individuals providing a longitudinal picture of the interaction of individual welfare recipients with DSS payments. It is suited for pathways analysis, as it includes de-identified unit record information, including payment types and amounts, and a range of demographic characteristics, including Indigenous status.

Income sources across the Indigenous working-age population

This section presents contextual information and key statistics on the Indigenous Australian working-age population (aged 15–64). Data in this section are sourced from the DSS Blue Book dataset (see Box 4.1) and ABS survey data.

A person’s capacity to earn an adequate income may be influenced by many factors—for example: availability of employment; level of education, training or skills (a major determinant of employment for those in the labour force); caring responsibilities; or by limitations due to health status or disability. Employment and receipt of income support also have a relationship with broader economic conditions—a stronger labour market (with high levels of employment) and overall stronger economic conditions are generally associated with decreased welfare expenditure (Klapdor & Arthur 2016).

The employment to population ratio for the Australian population aged 15 and over increased from 59% in 2002 to around 63% in mid-2008, at which point the global financial crisis started to affect the Australian economy (and signalled the end of the mining investment boom) (ABS 2018a). From mid-2008, the employment to population ratio fell to below 61% in late 2014.
Over the long term, employment rates for the Indigenous working-age population have increased. In 2014-15, 48% of the Indigenous working-age population were employed—an increase from 38% in 1994 (AIHW 2017a). There was a short-term decline from 2008 that occurred in the context of the global financial crisis, as well as the cessation of Indigenous employment under the Community Development Employment Program (CDEP) which accounted for almost half of the employment rate in Very remote areas in 2008. When CDEP participants are excluded from the analysis, there is no significant change in the Indigenous employment rate between 2008 and 2014-15 (AIHW 2018). Income and earnings across the Indigenous population may also be impacted by the younger age structure of the population, with almost one-third (32%) of Indigenous Australians aged 15-64 being younger than 25 (AIHW 2017a).

Based on 2014-15 ABS survey data, 47% of Indigenous Australians aged 18-64 received a government pension or allowance as their main source of personal income compared to 15% of non-Indigenous Australians for this age group (AIHW 2017a). The proportion of Indigenous Australians receiving government pensions or allowances as their main source of personal income was higher than for non-Indigenous Australians across all ages (AIHW 2017b:285). However, the proportion of Indigenous Australians relying on a government pension or allowance as their main income source fell from 50% in 2002 (Figure 4.1).

Figure 4.1: Proportion of Indigenous Australians aged 15-64 employed and proportion aged 18-64 with government payments as main source of income, 1994 to 2014-15

Source: AIHW 2017a.
The analysis of income support administrative data presented in this chapter focuses on Indigenous Australians aged 15–64 in receipt of the major non-education-related income support payments—that is, 1 of the following: Youth Allowance (Other); Newstart Allowance; Disability Support Pension (DSP); Carer Payment; Parenting Payment Single; or Parenting Payment Partnered—see Box 4.2. These payment types make up the majority of income support payments received by working-age Indigenous Australians who are not actively engaged in formal educational pathways (such as vocational or tertiary study or apprenticeships). These payment types have also been shown to be associated with longer term and intergenerational income support receipt (Cobb-Clark et al. 2017)—see ‘Chapter 2 Intergenerational transmission of disadvantage in Australia’.

Box 4.2: Income support payment types included in this analysis

The Australian Government, through the social security system, provides both long- and short-term income support payments to people who cannot fully support themselves. For many disadvantaged Australians, including Indigenous Australians, having access to income support is a key factor in ensuring their economic and social wellbeing.

Not all financial support provided through the social security system is considered income support. Payment types classified as income support are those expected to serve as a recipient’s primary source of income and are regular payments assisting with the day-to-day cost of living. Individuals can only receive 1 income support payment type at a time.

There are 18 specific income support payment types, with the focus of this chapter being on 6 main payment types—referred to throughout this article as the ‘6 payment types’:

- Youth Allowance (Other)—financial help for those aged 16–21 and looking for work, or temporarily unable to work
- Newstart Allowance—the main income support for those unemployed and looking for work
- DSP—for those who have a permanent physical, intellectual or psychiatric condition that stops them from working
- Carer Payment—for those who give constant care to someone who has a severe disability or illness, or an adult who is frail and old
- Parenting Payment Single—for single parents to help with the cost of raising children (where the youngest child is under 8)
- Parenting Payment Partnered—for partnered parents to help with the cost of raising children (where the youngest child is under 6).
Box 4.2 (continued): Income support payment types included in this analysis

Each payment type may have a range of payment levels depending on the circumstances and characteristics of the individual. Further information on these main income support payments is included in the following Australia’s welfare snapshots [www.aihw.gov.au/australias-welfare/snapshots):

- *Indigenous income and finance*
- *Unemployment and parenting income support payments*
- *Disability Support Pension and Carer Payment*
- *Income support payments for older people.*

See also ‘Chapter 3 Income support over the past 20 years’.

Of the approximately 220,800 Indigenous Australians on income support payments at the end of June 2016, based on official statistics (DSS 2016), around 189,900 were of working age and received 1 of the 6 payment types included in this analysis (Table 4.1). Indigenous Australians on the Age Pension (aged 65 and over) or in formal education made up the majority of the 31,000 other income support recipients.

The approximately 189,900 Indigenous Australians aged 15–64 receiving 1 of the 6 payments comprised 39% of the Indigenous population of this age (Table 4.1). Among those on 1 of the 6 payment types, the most common was Newstart Allowance (36%), followed by DSP (25%), Parenting Payment Single (19%), Youth Allowance (Other) (8.5%), Carer Payment (7.1%) and Parenting Payment Partnered (4.7%).

**Table 4.1. Number and proportion of Indigenous Australians aged 15–64 receiving income support payments, by payment type, June 2016**

<table>
<thead>
<tr>
<th>Payment type</th>
<th>Indigenous income support recipients aged 15–64</th>
<th>Indigenous population</th>
<th>Proportion of Indigenous population (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Age group&lt;sup&gt;(a)&lt;/sup&gt;</td>
</tr>
<tr>
<td>Youth Allowance (Other)</td>
<td>16,213</td>
<td>8.5</td>
<td>16–21</td>
</tr>
<tr>
<td>Newstart Allowance</td>
<td>68,501</td>
<td>36.1</td>
<td>22–64</td>
</tr>
<tr>
<td>Disability Support Pension</td>
<td>47,397</td>
<td>25.0</td>
<td>16–64</td>
</tr>
<tr>
<td>Carer Payment</td>
<td>13,423</td>
<td>7.1</td>
<td>15–64</td>
</tr>
<tr>
<td>Parenting Payment Single</td>
<td>35,350</td>
<td>18.6</td>
<td>15–64</td>
</tr>
<tr>
<td>Parenting Payment Partnered</td>
<td>9,017</td>
<td>4.7</td>
<td>15–64</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>189,901</td>
<td>100</td>
<td><strong>15–64</strong></td>
</tr>
</tbody>
</table>

<sup>(a)</sup> The age group defines the age of individuals eligible for each payment type within the working-age population (15–64).

<sup>(b)</sup> Numbers are rounded to the nearest 100.

Sources: ABS 2018b; DSS 2016.
Across each of the 6 payment types and for the corresponding age groups, the highest proportion in receipt of payments were for Newstart Allowance (18%) followed by Youth Allowance (Other) (17%), while it was lowest for those on Carer Payment (2.7%) and Parenting Payment Partnered (1.8%) (Table 4.1).

**Characteristics of Indigenous income support recipients**

This section, and the remainder of the analysis in this article, is based on the DSS DOMINO—see Box 4.1.

In 2016, Indigenous males had a lower rate of income support (47%) than Indigenous females (55%) (Figure 4.2). The rate of receipt of the 6 payment types was lowest for Indigenous Australians aged 15–19 (26%). This may be due to:

- a higher proportion being on education payment types;
- the removal of Youth Allowance for an unemployed young person who is not undertaking training or education, introduced in 2009; or
- people in this age group being still dependent on their families (such as being in education but not receiving a study payment).

The rate peaked at around 60% for Indigenous Australians aged 20–39 and then decreased with age to 48% for those aged 55–59; the rate at 60–64 (pre-retirement) was higher at 54% (Figure 4.2). The peak rate was highest for Indigenous males aged 35–39; later in life than Indigenous females for whom the rate peaked in those aged 25–29.

**Figure 4.2: Proportion of Indigenous Australians aged 15–64 receiving income support payments, by sex and age, 2016**

Note: Payment types include Youth Allowance (Other), Newstart Allowance, Disability Support Pension, Carer Payment, Parenting Payment Single and Parenting Payment Partnered.

Sources: ABS 2014; AIHW analysis of DSS DOMINO.
The receipt of income support also varied by geography, possibly reflecting employment opportunities. In 2016, *Major cities* had the lowest rate of receipt (45%). This increased with increasing remoteness, with the highest rate of receipt being in *Remote and very remote* areas (56%) (Figure 4.3).

**Figure 4.3: Proportion of Indigenous Australians aged 15–64 receiving income support payments, by remoteness area, 2016**

Based on the DSS DOMINO data set the proportion of the working-age Indigenous population on income support decreased from 50% in 2002 to 47% in 2007, and then increased to just over 51% in 2016, consistent with broader economic conditions. The trends in rates of income support receipt for males and females were fairly similar between 2002 and 2016, although males showed a stronger relationship to economic conditions, with a larger decrease in rates of income support receipt leading up to 2008.

The rates of income support receipt for different age groups show distinct patterns of change over time (Figure 4.4). Indigenous Australians aged 20–39 showed decreasing rates of income support receipt between 2002 and 2008, then increasing from 2009 to 2014—a reflection of the pattern of the broader economic conditions. In contrast, for Indigenous Australians aged 40–64, the rates of receipt of income support increased every year between 2002 and 2016.
For the 15–19 age group, however, rates of receipt decreased over the period, except for a slight increase between 2008 and 2010. As noted previously, the initial decline between 2002 and 2008, and the subsequent increase in 2009 and 2010, may be related to broader economic conditions; the decline from 2010 onwards is probably related to the introduction of the Social Security Amendment (Training Incentives) Act 2009 which diverted young, low-skilled Australians away from unemployment benefits into educational pathways.

**Figure 4.4: Proportion of Indigenous Australians aged 15–64 receiving income support payments, by age, 2002 to 2016**

<table>
<thead>
<tr>
<th>Year</th>
<th>15–19</th>
<th>20–39</th>
<th>40–64</th>
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<tbody>
<tr>
<td>2002</td>
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<td>2016</td>
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</table>

*Note: Payment types include Youth Allowance (Other), Newstart Allowance, Disability Support Pension, Carer Payment, Parenting Payment Single and Parenting Payment Partnered.*

*Sources: ABS 2018b; AIHW analysis of DSS DOMINO.*

**Degree of reliance on income support**

In addition to characteristics such as age and the number of dependants, many income support payments further target those in need through means-testing and assets-testing. Individuals who receive income from work or investments, or who have substantial assets, may have their benefit payments reduced or not receive any payments. Means-testing is designed so that at low incomes an individual will receive the full benefit, but once past a threshold, the payment will taper with increasing income until no benefit is received. The dollar value of the threshold is different for different payment types, as is the level of the payment.
A typical measure of the degree of reliance on income support is the extent to which income support payments contribute to a person's total income (Black & Lee 2009). A lack of data in DOMINO on the total income a person received means this variable cannot be directly measured. Total income can, however, be inferred from the relationship between payments received and the maximum possible benefit payable, since above an income-free level, payments taper down as income from other sources increases.

For this analysis, the income support reliance (ISR) rate is defined as the actual payments received over a period as a proportion of the maximum possible benefit payable, with a higher proportion representing a greater degree of reliance on income support—see Box 4.3 for details.

Box 4.3: Calculating a measure of income support reliance

To determine the ISR rate using DOMINO, each calendar year is divided into 3 time periods where the maximum benefit payable is fixed. Then, for each individual:

• within each of the 3 periods, the individual is assigned the payment type they are in receipt of for the longest duration within that period

• the proportion received of the maximum benefit available is determined for each of the 3 periods

• the ISR rate for a calendar year is the sum of the proportions of the maximum payment for the 3 periods, weighted by the relative time period for that calendar year.

Distribution of income support reliance

Analysis of the 2016 distribution of ISR rates by deciles for Indigenous Australians on the 6 payment types shows that the proportion of the population receiving 0%–9% of the maximum benefit was similar for all deciles up to 50%–59%, after which there was a slight increase up to 80%–89% of the maximum. The clear feature is that over half of the population (56%) received 90%–100% of the maximum income support payment (Figure 4.5).
Figure 4.5: Distribution of income support reliance rates among Indigenous income support recipients aged 15–64, 2016

Note: Payment types include Youth Allowance (Other), Newstart Allowance, Disability Support Pension, Carer Payment, Parenting Payment Single and Parenting Payment Partnered.

Source: AIHW analysis of DSS DOMINO.

Analysis of changes in the annual distribution of ISR rates was undertaken by splitting the rates into 4 groups: 0%–29%; 30%–59%; 60%–89%; and 90%–100%. These groups were chosen because the deciles constituting them were similar over time. Figure 4.6 shows that among Indigenous Australians aged 15–64 on income support:

• Between 2002 and 2007, there was an overall increase in the proportion of Indigenous Australians on income support with lower ISR rates (see ‘A’), and a corresponding overall decrease in those with a 90% or higher ISR rate (see ‘B’)

• Between 2007 and 2015, the proportion with an ISR rate of 90% or more increased (see ‘C’), while the proportion in the lower ISR rate categories decreased. This may be due to the relatively strong labour market up to 2007, followed by somewhat weaker economic conditions following the global financial crisis.
Mean rates of income support reliance

In 2016, the mean ISR rates for working-age Indigenous Australians were:

- 77% across all 6 payment types—that is, on average, income support recipients were paid 77% of the maximum rate of benefit

- highest for recipients of DSP (91%) and Carer Payment (87%) (Figure 4.7)—correlating with individuals on these payment types being less likely to be in the labour force—followed by Parenting Payment Single (86%) and Parenting Payment Partnered (79%)

- lowest for those on Youth Allowance (Other) (58%) and Newstart Allowance (72%), reflecting the greater likelihood of individuals in receipt of these payment types finding employment to supplement their income support payments.
In 2016, the extent of ISR:

- differed markedly by age—those aged 15–19 had an overall mean ISR rate of around 57%, which increased to 74% for recipients aged 20–24 and to 87% for those aged 55–59
- was lower among Indigenous males (73%) compared with Indigenous females (81%) (Figure 4.8).
In 2016, there were only minor differences in the mean ISR rates across states and territories, and remoteness areas. However, there was a consistent decline in the mean ISR rate by Socio-Economic Indexes for Areas (SEIFA) deciles—with a higher ISR rate of 79% in decile 1 (the most disadvantaged) compared with 70% in decile 10 (the least disadvantaged) in 2016.

**Trends in income support reliance**

Between 2002 and 2008, the mean ISR rate was around 70% for Indigenous Australians on working-age payments, increasing to around 77% in 2016. For those on DSP, there was little change in the ISR rate between 2002 and 2016, where the mean rate was around 90% (Figure 4.9). For Carer Payment and the 2 parenting payments, there was increasing reliance over this time. For the 2 payment types made to jobseekers, Youth Allowance (Other) and Newstart Allowance, mean ISR rates showed a pattern seemingly related to general economic conditions, with an overall decrease in ISR rates up to 2007 followed by an overall increase (Figure 4.9).
The mean ISR rate for both Indigenous males and females decreased between 2002 and 2007 and increased thereafter, with a larger effect for males. That is, the mean ISR rate showed a larger decrease between 2002 and 2007 for males, as well as a larger increase from 2008 onwards—again, this possibly reflects changing economic conditions. This ‘economic’ effect was also evident in mean ISR rate for all ages 15–54—the mean ISR rates for Indigenous Australians aged 55–64 showed little variation around 2008.

Figure 4.9: Mean income support reliance rate among Indigenous income support recipients aged 15–64, by payment type, 2002 to 2016

Source: AIHW analysis of DSS DOMINO.

Pathways through time—income support

An understanding of pathways across the income support system among Indigenous Australians provides important context on entrenched disadvantage and long-term ISR. DOMINO allows de-identified records of individuals receiving income support payments to be tracked. This section presents a cohort analysis of Indigenous Australians who received 1 of the 6 payment types in 2002 (see Box 4.4). The analysis in this section follows this ‘2002 cohort’ for 15 years, to explore entries and exits from the income support system and pathways between payment types. The analysis also looks at characteristics of individuals who were able to permanently leave income support.
Box 4.4: Income support recipient cohort analysis

A 2002 baseline cohort
Around 101,000 individuals aged 15–50 who received 1 of the 6 payment types on 1 January 2002 (the ‘2002 cohort’) were tracked through DOMINO until the end of 2016. This age group was selected because they would still be included in the working-age population (aged 15–64) throughout the 15-year tracking period. Those who died were excluded, except for those who died but were not recorded as such.

Latest payment types across 3 periods
The 2002 cohort was tracked to assess payment transitions. Three periods were chosen for measurement, each consisting of 4 years: 2002–2005, 2006–2009 and 2010–2013. For each 4-year period, individuals in the cohort were assigned the latest payment type they received during that period, or ‘none’ if they were not observed as using income support during that time.

Permanent leavers and those still on payments
For each individual, the data were divided into the period they were ‘still on’ income support and the period when they had ‘permanently left’ income support. A person was determined to have ‘permanently left’ only when they were not observed as having received any of the 6 payments at a given date and had not subsequently resumed any of those 6 payments before the end of 2016. Where an individual was not receiving income support at a measurement point but they subsequently returned, they were counted as ‘still on’ income support at the measurement point. Summary statistics are presented at 3 measurement points: 1 January 2006, 2010 and 2014.

Figure 4.10 presents 4 example scenarios of individual pathways and the categorisation of ‘permanently left’ or ‘still on’ income support. The first example shows that an individual can be considered ‘still on’ income support at all points in 2006–2009 but not be on any payment from 2006–2009.

continued
Transition between payment types

Figure 4.11 shows the most common pathways for the 2002 cohort, based on the last payment type recorded for each of the time periods: 2002–2005; 2006–2009; and 2010–2013. The pathways show whether the last payment type in 1 period (for example, 2006–2009) was the same or different to that of the previous period, with ‘none’ reflecting that the person was not on any of these payment types during the period.

Each flow shows the proportion of the 2002 cohort across all income support payments, along with the breakdown of the cohort on that specific payment type—for example, 27% of the 2002 cohort had Newstart Allowance as their latest payment in 2002–2005 as well as in 2006–2009. This flow accounted for 67% of the cohort on Newstart Allowance in 2002–2005.
Analysis of the last payment type recorded in 2002–2005 and 2006–2009 showed that among the 2002 cohort:

- Almost two-thirds (63%) of income support recipients remained on the same payment type over the 2 periods. The degree to which recipients maintained their original payment varied across payment types—95% of those on DSP remained on this payment, followed by 67% of those on Newstart Allowance, 56% of those on Parenting Payment Single and 38% of those on Parenting Payment Partnered.

- Over one-third (37%) of income support recipients moved away from their original payment type between the 2 periods (including those who moved to recording no payment type). The largest movements between payment types were observed for those moving from Parenting Payment Single to Newstart Allowance (6.7% of the 2002 cohort) followed by those moving from Newstart Allowance to ‘none’ (5.6% of the 2002 cohort).
The same general patterns occurred between 2006–2009 and 2010–2013, with around 62% of all income support recipients remaining on the same payment type between the 2 periods. Again, DSP had the highest proportion maintaining the same payment type (96%) followed by Newstart Allowance (66%). Movement to Newstart Allowance was the largest flow (8.3% of the 2002 cohort) from those on Parenting Payment Single. Further, the majority of the 2002 cohort who were not on any of the 6 payment types at the end of 2006–2009 were also not any payment at the end of 2010–2013 (represented by the large proportion, 71%, going from ‘none’ to ‘none’ in Figure 4.11).

Two movements observed between 2002–2005 and 2006–2009 as well as between 2006–2009 and 2010–2013, include those from:

- Newstart Allowance to DSP—of the 2002 cohort that recorded Newstart Allowance as their latest payment in 2002–2005, 10% had DSP recorded as their latest payment in 2006–2009. This proportion increased to 12% of the 2002 cohort that had Newstart Allowance recorded as their latest payment in 2006–2009 and DSP in 2010–2013. The movement from a jobseeker payment to a disability payment requires further investigation to understand whether disability is becoming more prevalent or whether those with a disability are being more accurately and appropriately assessed.
- Newstart Allowance to none of the 6 payment types—14% of the 2002 cohort who recorded Newstart Allowance as their latest payment in 2002–2005 were not on any of the 6 payment types in 2006–2009. The proportion of the 2002 cohort on Newstart Allowance as the last payment in 2006–2009 that were not on any of the 6 payment types in 2010–2013 was 12%.

**Permanent leavers**

Permanent leavers were those who had left income support and had not subsequently returned to any of the 6 payment types up to the end of 2016 (see Box 4.4). Between 2002 and 2014, just under one-fifth (18,900 or 19%) of Indigenous Australians in the 2002 cohort had permanently left income support (that is, not receiving any of the 6 payment types up to 2016). Cumulatively, there were around 6,000 (5.9%) who had permanently left by 1 January 2006, around 11,800 (12%) by 1 January 2010 and around 18,900 (19%) by 1 January 2014.

**Characteristics of permanent leavers**

Among the 2002 cohort, 35% (850 people) of those on Youth Allowance (Other) permanently left income support by 1 January 2006 (Figure 4.12). All other payment types had permanent leaver rates below 9%, with Parenting Payment Partnered (8.3%) and Newstart Allowance (7.5%) the next 2 highest rates, and DSP (1.3%) the lowest rate.
Over half (58%) of the 2002 cohort that were not on any of the 6 payment types in the 4 years to 1 January 2010 (i.e. ‘none’) had not returned to any of the 6 payment types by the end of 2016 (Figure 4.13). This rate of permanent leavers increased to 77% for those that were not on any of the 6 payment types in the 4 years to 1 January 2014.

At all 3 measurement points, Indigenous males had a higher rate of permanent leavers than Indigenous females—around 1.5 percentage points higher at each of the time points. There were minor variations in the rates of permanent leavers between age groups, with 1 exception: the 45–50 age group had lower rates of permanent leavers than the younger age groups.

Further examination of the 6 payment types (Figure 4.12) shows the rates of permanent leavers at 1 January 2006 by latest payment type (over the period 2002–2005) and sex. Where the latest payment recorded was Youth Allowance (Other), the permanent leaver rate was over 30% for both Indigenous males and females (though only 850 recipients had this as their latest payment). For those who had Parenting Payment Partnered as their latest payment type, Indigenous males had a substantially higher rate of permanent leavers than females, while for Carer Payment and Newstart Allowance the rate was only slightly higher for males. The other payment types were approximately the same for males and females.

![Figure 4.12: Proportion of permanent leavers in the 2002 cohort, by sex and latest payment type, 1 January 2006](source: AIHW analysis of DSS DOMINO.)
Similar patterns were also observed on 1 January 2010 with the latest payment being determined over the 4 years 2006–2009. The main additional feature is that 59% of Indigenous females who received 1 of the 6 payment types in 2002 and did not receive any of the 6 payment types between 2006 and 2009 were permanent leavers—slightly higher than for males (56%) (Figure 4.13). A similar effect was observed on 1 January 2014, with the rates rising to over 75%.

**Figure 4.13: Proportion of permanent leavers in the 2002 cohort, by sex and latest payment type, 1 January 2010**

![Chart showing proportion of permanent leavers in the 2002 cohort, by sex and latest payment type, 1 January 2010.]

*Note:* Youth Allowance (Other) is not shown as no individuals had this payment type as their latest payment type between 2006 and 2009 inclusive.  
*Source:* AIHW analysis of DSS DOMINO.

**Next steps**

Further research on income support among Indigenous Australians is currently being investigated by the AIHW, including looking at shorter time frames in the pathways through income support; investigating the characteristics of permanent leavers relative to those who remain on income support; and investigating intergenerational income support use.  

A forthcoming AIHW publication aims to expand on this article by investigating a select number of these further avenues, as well as providing technical detail of all analyses.
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The future of work: using skills data for better job outcomes

Australian Government Department of Employment, Skills, Small and Family Business.
Employment—and the economic resources and social ties it provides—can be crucial for the wellbeing of individuals, families and communities, and for the functioning of society. In a changing economy it is critical to understand which skills can lead to greater employment opportunities.

Work and workplaces in Australia are being changed by new technology, globalisation, demography and consumer preferences. While Australia’s economy and workforce have successfully navigated previous periods of change, there is uncertainty about which jobs might be lost in the current shift, which new jobs will be created and what skills will be needed for the future.

The future of jobs report (WEF 2018a) states that:

- New technology adoption drives business growth, new job creation and augmentation of existing jobs, provided it can fully leverage the talents of a motivated and agile workforce who are equipped with futureproof skills to take advantage of new opportunities through continuous retraining and upskilling.
- Conversely, skills gaps ... may significantly hamper new technology adoption and therefore business growth.

Analysis of the skills involved in current Australian jobs and how these are changing over time will provide valuable information to support workers, job seekers, businesses, regions and policymakers to be ready for future change and help to minimise skills gaps.

In particular, skills-based analysis could help workers and job seekers to understand the skills they need as technology changes the way work is done in their current jobs and to set themselves up for future jobs. It could help employers to better articulate the skills that they are looking for and assist them in workforce planning and training current workers. Educational institutions would benefit from up-to-date information to tailor courses to local labour market demand. Skills-based analysis can also assist policymakers to guide people from declining sectors into areas of growing employment demand, and improve the targeting of welfare interventions to support job seekers.

This chapter provides a brief analysis of the predictions of the impact of automation on jobs and explores how a more granular skills approach using static and dynamic data can offer new insights to help answer some of the questions surrounding the future of work (see Box 5.1 for 5-year employment projections in Australia).
Box 5.1: Department of Employment, Skills, Small and Family Business employment projections

The 5-year employment projections of the Department of Employment, Skills, Small and Family Business reflect the continual evolution of the economy responding to an ageing population and shift towards service industries. *Health care and social assistance* is expected to make the largest contribution to employment growth in the 5 years to May 2023, followed by *Construction, Education and training* and *Professional, scientific and technical services*. Together, these 4 industries are projected to provide almost two-thirds of total employment growth over this period.

Occupation groups projected to grow in Australia in the 5 years to May 2023 include *Professionals* and *Community and personal service workers*, consistent with strong projected growth in service industries. Occupations projected to decline in Australia over this period, where work includes routine elements or is susceptible to automation, include *Contract, program and project administrators, Secretaries, Personal assistants, Information officers* and *Bank workers* (Department of Employment, Skills, Small and Family Business 2019a).

Impact of automation on jobs

Historical experience has demonstrated that while some jobs no longer exist because of automation, other jobs have been created. Until now, new technologies have increased prosperity by increasing productivity in the long term, but have tended to disrupt parts of the labour market in the short and medium term. In particular, new technologies have automated some routine and manual work in lower to middle-skilled occupations while enhancing higher skilled occupations.

As an example, the number of workers in traditional printing trades declined by 17,000 between 1994 and 2014. At the same time, the number of graphic designers rose by 35,000. Automation in the printing industry caused a shift away from repetitive, mechanical work and towards more skilled and creative work (Hajkowicz et al. 2016).

Estimates of the potential impacts of automation on employment vary widely. Figure 5.1 shows a number of studies undertaken to estimate the share of employment that could potentially be automated. These studies produce varied predictions despite a similar underlying methodology, which involves assessing the extent to which occupations are protected from automation by engineering bottlenecks.
The earliest study, by Frey and Osbourne (2013), predicted that 47% of total employment in the United States had the technical potential to be automated. This work was replicated using Australian data, producing estimates that ranged from 40% to 44% (Durrant-White et al. 2015; Edmonds & Bradley 2015). The adoption of finer task-based analysis by the Organisation for Economic Co-operation and Development (OECD) resulted in a more credible estimate of 10.6% of jobs in Australia being at high risk of automation (OECD 2019a), with a further study using the OECD methodology by Borland and Coelli (2017) estimating 9%. A study of 46 countries—representing about 80% of the global labour force—analysed work activities rather than whole occupations, and found that less than 5% of occupations can be fully automated (McKinsey Global Institute 2017). This variation shows the impact different methodologies, classification systems and assumptions have on predicted outcomes of automation.

Despite the continuing evolution of the labour market, the employment to population ratio for people of workforce age is at a historical high. This indicates the national economy, jobs market and workforce continue to be responsive to change.

Thirty years ago, Manufacturing was the largest employing industry in Australia, accounting for 15.2% of total employment. By February 2019, it has dropped back to seventh position and accounted for 6.8% of total employment. While employment in manufacturing dropped by 24.4% over the period, employment across all industries grew by 68.4%. The creation of new jobs outstripped the loss of jobs as the traditional manufacturing sector declined.
Recent analysis by the OECD (2019b) found that 70% of retrenched workers regain employment within 1 year, with 80% regaining employment within 2 years. This is not to underestimate the hardship experienced by those people who are made technologically redundant. Not all transitions will be seamless in the short to medium term. The OECD analysis also found that women, older workers, less-educated workers and casual and part-time workers have a significantly lower chance of finding new employment within 2 years of being displaced from their job.

In addition to the 10.6% of jobs at high risk of automation, the OECD found a further 25% of Australian jobs may change substantially in the way work is done (OECD 2019a). This suggests that ‘job change’ will be as important in managing the workforce impacts of automation as ‘job loss’. This is, for example, reflected in the changing demand for digital skills (Box 5.2).

Box 5.2: Basic and advanced digital skills

The tasks making up current jobs are changing with the adoption of digital and other new technologies. As tasks change, the skills required by workers to undertake those tasks are changing.

Analysis of online job advertisements indicates that demand for advanced digital skills changes more quickly than other skills. Employability skills (for example, communication, organisation or teamwork) and specialised skills (for example, first aid, forklift operation or accountancy) have remained relatively stable while digital skills change as new technology is developed and software packages come in and out of favour.

This change is most evident in the ability to use software packages. Job advertisements mentioning Tableau (data visualisation software) were 19 times more prevalent in 2018 than 2012. The proportion of employers seeking experience with Confluence (a collaboration program) increased by a factor of 9 over the same period. At the same time, Adobe Photoshop (graphics editing) skills dropped from being the 10th most popular digital skill to the 31st.

Advanced digital skills, like coding and data visualisation, attract a wage premium (Bradley et al. 2017), but may become redundant quickly. In contrast, demand for familiarity with a small number of simple software packages is high and remains stable. For the past 7 years, the most requested digital skill was experience in Microsoft Excel (spreadsheets), followed by Microsoft Office (word processing) and then SAP (business operations).

While the latest and most advanced technical skills represent a lucrative niche in the labour market, basic digital literacy will be valuable for all workers and job seekers.
Analysis of the amount of time workers spend on different tasks shows that, on average, Australian jobs experienced 9.3% change between 2011 and 2016. New tasks in jobs contributed 0.9 percentage points to this result and reallocation of time across existing tasks contributed 8.4 percentage points (AlphaBeta 2018). Figure 5.2 shows the estimated task change for 3 occupations over this period.

AlphaBeta (2018) found the occupations experiencing the least task change were most susceptible to redundancy and business failure. Conversely, jobs where tasks evolved more quickly had better labour market outcomes. Higher skilled occupations, middle-aged workers and urban workers are experiencing greater task change than other groups.

This analysis indicates while some future jobs may be lost to automation, a key challenge for current and future workers is to be flexible and able to acquire new skills as tasks within jobs change. This points to the need for planning, financing and delivering reskilling and job-transition programs.

**Figure 5.2: Examples of task changes within occupations between 2011 and 2016**

<table>
<thead>
<tr>
<th>Top 5 tasks 2016 and overall time spent on task</th>
<th>Change (2011–2016)</th>
<th>Total task change over 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered nurses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitor patient conditions</td>
<td>11%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Record patient medical histories</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Administer non-intravenous medications</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Maintain medical facility records</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Inform medical professional regarding care</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Secondary school teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluate student work</td>
<td>12%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Monitor student performance</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Enforce rules on student behaviour</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Apply multiple teaching methods in class</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Establish rules governing behaviour</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Sales representatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain product info to customers</td>
<td>10%</td>
<td>8.6%</td>
</tr>
<tr>
<td>Estimate costs</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Contact customers to promote products</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Recommend products</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Answer customer questions</td>
<td>6%</td>
<td></td>
</tr>
</tbody>
</table>

*Note:* Total task change over 5 years is across all tasks, not limited to the top 5 tasks.
*Source:* AlphaBeta 2018.
In addition to changing jobs, new technology is also creating new jobs that were previously unimaginable. In some cases, this is due to increased productivity and new production methods in existing industries; in others, technology enables humans to do things that were previously impossible, spawning entirely new industries. Yet other new jobs result from combining tools and techniques from across different industries in novel ways, creating new fields of expertise, as well as ‘hybrid jobs’ (Box 5.3).

**Box 5.3: Hybrid jobs**

Hybrid occupations are among the fastest growing in the labour market. They are jobs requiring a diverse mix of skills, such as technical, software, business, creative and interpersonal skills. Analysis of real-time job-advertisement data has shown in-demand jobs increasingly require a range of these employability skills, specialised skills and digital skills.

Projections by Burning Glass Technologies (Sigelman et al. 2019) show that in the United States, jobs with a very high hybridisation score are projected to grow nearly 16.0% by 2026 compared with 8.7% for all jobs.

As an example, a ‘user experience’ (UX) designer makes sure products are useful and relevant to customers in terms of branding, design, usability and function. The role requires a combination of research, software, marketing and design skills. This skill portfolio may not be available in a single educational qualification, but could be acquired through micro-credentials, short courses and online learning.

Traditional occupations are also becoming ‘hybridised’, such as Human resource managers needing data analytics skills and Data scientist roles requiring strong communication and presentation skills.

**Using data on skills to improve job outcomes**

Adopting skills-based approaches to analysing the labour market will help Australia respond to changing demand for skills due to technological change and other global trends (OECD 2018; WEF 2018b).
For example, identifying workers’ skills and seeing how they could transfer to other jobs was a key feature of the collaborative response to the closure of the car manufacturing industry. The Australian Government, automotive manufacturers and relevant state governments established a response strategy to support firms and workers to plan and develop new capabilities. The strategy was pre-emptive and based on the provision of labour market information, career advice, skills and training, and employment support. Outstanding transition outcomes were achieved by Holden’s workers, with 83% of workers successfully transitioning into the next stage of their lives.

The Department of Employment, Skills, Small and Family Business is working to develop tools to make it easier for all Australians to identify their skills and see how they transfer across occupations. Part of this work has involved adapting the approach of the World Economic Forum’s (2018b) report, *Towards a reskilling revolution*, for Australian conditions. This analysis breaks down jobs into a series of relevant, measurable components (skills, education, experience, abilities and work activities). This makes it possible to calculate the similarity between the requirements of 2 jobs and identify viable transition pathways.

This approach uses granular skills data from Burning Glass Technologies, United States careers database O-Net and the Australian Bureau of Statistics. It provides a combined analysis of job similarity, projected growth or decline of relevant occupations, and expected earnings. This information could support someone looking for a career change to identify a fuller set of job opportunities.

Figure 5.3 details an example of a viable and desirable transition for an Information officer. Information officers respond to personal, written and telephone inquiries and complaints about an organisation’s goods and services, provide information and refer people to other sources. Digital communications and advances in information processing are affecting this occupation. The number of Information officers is projected to shrink from 62,500 in May 2018 to 58,400 in May 2023, with an overall decline of 7% by 2030.

Skills analysis shows that Information officers have skills and attributes that allow a smooth job transition into Tourism and travel advisers, which might not initially be obvious as a next career move. The transition from Information officer to Tourism and travel adviser is theoretically viable because the 2 occupations are similar. It is also desirable because Tourism and travel advisers are projected to grow by 5% to 2023, and there is an average estimated income gain of $102 per week from this transition.
The analysis also includes a ‘leadership lens’, a practical planning tool for government and business decision makers. This lens uses linear programming to optimise the outcomes for all individuals in declining jobs and provide an economy-wide simulation of ideal pathways across the entire labour market.

The job-similarity algorithm shows the power of supplementing occupational analysis with skills information. Several prominent research organisations, including Data61 (Hajkowicz et al. 2016), National Centre for Vocational Education and Research (NCVER) (Siekmann & Fowler 2017) and the OECD (OECD 2018), have advocated going further and focusing analysis primarily on skills.

As our discussion of hybrid jobs (Box 5.3) shows, occupational boundaries are becoming blurred and expertise in one field is often proving more powerful when combined with another (Hajkowicz et al. 2016). It is likely that businesses will increasingly look at prospective employees’ skill sets rather than specific occupation titles; and workers will need to be able to work across and outside traditional job descriptions. In the future, it may be less useful to know how many people have Data scientist as their job title than to understand the supply and demand for data science skills.

This kind of analysis is currently hampered in Australia by the lack of a common language and framework for understanding skills. A standardised approach to skills has the potential to create a large range of labour market efficiencies. It would enable education providers to take a more modular approach to course design and ensure graduates have
marketable skills. It would assist businesses in better workforce planning and in finding better candidates. National professional associations could analyse skills needs and anticipate workforce shortages in their industries. Cities and regions could identify skills gaps and develop creative strategies to boost local employment.

**Next steps**

The Department of Employment, Skills, Small and Family Business is working to support deeper understanding of the labour market and more up-to-date, detailed, skills-based analysis.

**Skills Match tool**

We have recently launched the Skills Match tool on the Job Outlook career advice information portal joboutlook.gov.au (Department of Employment, Skills, Small and Family Business 2019b). This tool helps individuals to identify transferable skills so they can follow pathways to new jobs.

**Skills classification for Australia and emerging trends in skills**

We have developed a dynamic skills classification. Its dynamic nature means it can also highlight emerging skills in the labour market, which could assist workers and job seekers to prepare for new jobs more quickly than currently possible. We will shortly begin consulting with industry experts to validate the classification and build it into a skills taxonomy for Australia.

**A data infrastructure for a dynamic labour market**

We are developing infrastructure to combine data sets from multiple sources and provide real-time access to reliable and trusted skills and jobs information. To date, the system includes data from Burning Glass Technologies, the United States careers database O-Net, the Australian Bureau of Statistics, the Department of Education and Training, the Australian Taxation Office and other administrative data sets. Combining these data sources will help answer questions including:

- How could job seekers or workers make a quicker and smoother job transition as task and skill requirements change?
- How can employers improve their workforce planning and recruit people with the required skills?
- How can educational institutions monitor the skills market to adjust course offerings quickly and as required?
- How can policymakers guide people from declining sectors into areas of growing employment demand and target welfare interventions to support job seekers better?
References


Disability services and statistics: past, present and future

Rosamond Madden and Richard Madden, University of Sydney.
For almost 3 decades the AIHW, alongside the Australian Bureau of Statistics (ABS), has been a key information provider for change and reform processes in the Australian disability services system. Ideas about disability itself and about the nature of appropriate supports have been driven chiefly by the efforts of people with disabilities and their advocates and families. These efforts have been strengthened by international advocacy and the work of international organisations such as the United Nations. Policymakers and service providers have engaged with people with disability to change the Australian system. With these changes and in line with new philosophies, national data collections have been developed in collaboration with those driving and implementing change. In turn, improved data and statistics have enabled policies to be reviewed, refined and improved. While there is scope for more improvement to data on disability in Australia, the cooperation among all interested parties provides a model for statistical collaboration resulting in an information base for major social reforms. This collaborative interplay of ideas, national policy development and national data is chronicled in this article. It is informative to reflect on these practices at a time of significant change in the disability services and data landscape.

The interplay of ideas, policy and national data over time

This first and major section of this article outlines the history of disability services and data in Australia. The parallel and interactive developments in ideas, policy and data are chronicled in Table 6.1, with headings indicating the major stages across the decades. The table provides details which can be read alongside this section. It is largely based on analysis of AIHW’s biennial Australia’s welfare reports from 1993. Other references are cited where relevant and a full list of sources are provided in the reference list.

Later sections look forward briefly to what might come next.

Foundations

From the 19th century through to the mid-20th century, there was a significant evolution in ideas about disability and the people involved. Exclusionary attitudes and services that failed to acknowledge people’s rights began to give way to recognition of people’s needs and the beginnings of rehabilitation, support services and income support provision (AIHW 1993: chapters 1 and 6). By the early 20th century, there was growing recognition in Australia of the needs of war veterans and those injured in industrial accidents, with a related querying of the previous institutional and charity models of service.
By the mid-20th century and the end of World War 2, support for people with disability was increasingly accepted as a social responsibility. There was acceptance of the need for educational, vocational and community support for people with disability. In 1948, the Commonwealth Rehabilitation Service was formally founded. A focus on community service provision continued to grow. Parents began to organise around children’s needs, increasingly reluctant to leave them in poorly resourced institutions, and founding a range of disability-specific organisations. Sheltered workshops were established by voluntary organisations, often disability-specific, sometimes with nearby accommodation—a congregate model criticised and dismantled in following decades. Education for children with sensory, intellectual and physical disabilities tended to be provided by charities. Advocacy groups, including the predecessor of the National Council on Intellectual Disability, were established in the late 1950s to represent consumers, families and community members.

Human rights and the voices of people with disability

Human rights and consumer power were the catalysts for change in the 1960s and 1970s. International rights instruments were agreed and supported by Australia. Service providers began consciously to follow philosophies acknowledging the rights of people with disability to lead lives like those of all people generally and to exercise choice in doing so. Governments legislated to acknowledge their responsibilities to fund an array of services (see Table 6.1).

In 1976, the United Nations declared 1981 to be the International Year of Disabled Persons, with its themes of ‘full participation’ and ‘equality’. Drawing on these themes, consultative mechanisms became a feature of the policy landscape, and influential representative and advocacy groups formed and participated in advisory committees. Community-based programs were developed and new Commonwealth legislation in 1986 changed the landscape for disability services. Data on services were limited at that time; however, new population survey-based data made people with disability ‘visible’, comparing their experiences with the rest of the population. The ABS Survey of Disability, Ageing and Carers (SDAC) has proved to be a valuable resource over all decades since its beginning in 1981.
### Table 6.1: The chronology of ideas, policy and national data in Australia over recent decades

<table>
<thead>
<tr>
<th>Era</th>
<th>Ideas/philosophy/focus</th>
<th>Australian policy, services and assistance</th>
<th>Data (especially on support services)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960s– 1970s</td>
<td><strong>Consumer power and human rights</strong>&lt;br&gt;‘Normalisation’ principles spread from Scandinavia: providing people with disability opportunities to live a life as close to ‘normal’ as possible in terms of the conditions and patterns of their everyday lives (for example, Nirje 1980).&lt;br&gt;1975: United Nations Declaration on Rights of Disabled Persons.&lt;br&gt;Australia a signatory to 1975 United Nations Declaration of the Rights of Disabled Persons; people with disabilities should have access to the same opportunities and rights available to all citizens.&lt;br&gt;(AIHW 1993)</td>
<td><strong>Governments and NGOs together</strong>&lt;br&gt;Governments accept responsibility for community service provision.&lt;br&gt;Commonwealth funds grants to voluntary organisations providing sheltered employment, accommodation and children’s assistance.&lt;br&gt;1974: <em>Handicapped Persons Assistance Act</em> 1974 replaces a previous array of legislation for subsidising a variety of services—training, therapy, rehabilitation, support.&lt;br&gt;1963: Australian Council for the Rehabilitation of the Disabled (later ACROD, and then National Disability Services) established to represent NGOs.&lt;br&gt;1977: Royal Commission into Human Relationships.&lt;br&gt;(AIHW 1993)</td>
<td></td>
</tr>
</tbody>
</table>
Table 6.1 (continued): The chronology of ideas, policy and national data in Australia over recent decades

<table>
<thead>
<tr>
<th></th>
<th>Ideas/philosophy/focus</th>
<th>Australian policy, services and assistance</th>
<th>Data (especially on support services)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980s</td>
<td>Participation, representation, consultation</td>
<td>New policies and structures</td>
<td>Disability data beginnings</td>
</tr>
<tr>
<td></td>
<td>1983: Disabled Peoples’ International established in Australia (genesis 1981 in Canada).</td>
<td>1985: Home and Community Care program for older people, and younger people with disability.</td>
<td>1986: Commonwealth government figures (on persons funded under the Handicapped Persons Assistance Act) report more than: • 11,000 people in sheltered employment • 11,000 people in training centres • 7,000 people in residential accommodation (AIHW 1993:269).</td>
</tr>
<tr>
<td>1990s</td>
<td>Legislation, agreements, actions to operationalise ideals of 1980s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Governments seek to reduce role in direct community service provision, with purchaser/provider models introduced (AIHW 1997a).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1996: National Disability Advisory group provides link between government, people with disability, families, carers and service providers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New international definitions for disability, removing ‘handicap’ and using ‘participation’ (AIHW 1997a:290).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of relatable data for policy</td>
<td></td>
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<td></td>
<td>Major reports found planning and evaluation of national programs hampered by lack of relatable data sources (for example, Baume &amp; Kay 1995; Office of Disability 1994; Senate Standing Committee on Community Affairs 1992).</td>
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<td></td>
<td>1991: CSDA introduced—rationalises funding and administrative arrangements among 9 jurisdictions; Commonwealth responsible for employment services, states and territories for accommodation support and other services. Agreement to exchange data for planning purposes, national program evaluation (AIHW 1993:326).</td>
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<td></td>
<td>1992: Australian Institute of Health becomes AIHW with responsibility for reporting nationally on disability services as part of ‘welfare services and assistance’.</td>
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<td></td>
<td>AIHW establishes group to advise on national data consistency and international development work ultimately leading to ICF (Madden &amp; Hogan 1997).</td>
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<td></td>
<td>Breadth of disability data recognised—new collaborations</td>
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<td></td>
<td>AIHW recognises scope of relevant services: income support, specialist disability support, mainstream, as well as informal assistance (AIHW 1993:300). Population data and carer data included in 1993 and thereafter. Discusses concepts and challenges of designing policy-relevant data on agreed, stable, consistent definitions, while policy and terminology may change more rapidly.</td>
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<td></td>
<td>Data were limited in 1993:</td>
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<tr>
<td></td>
<td>• government (state/Commonwealth) expenditure estimated as $932 million (AIHW 1993: 304)</td>
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<td></td>
<td>• service user data available only for Commonwealth-funded services (AIHW 1993:308–9).</td>
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<td></td>
<td>AIHW begins collaborative development of national minimum data set for CSDA services. Service-based ‘snapshot’ collection.</td>
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</table>

Table 6.1 (continued): The chronology of ideas, policy and national data in Australia over recent decades
Lack of relatable data for policy (continued)

AIHW commissioned to do first study of demand for disability support services (AIHW 1997c:305–8; Madden et al. 1996).

1997: COAG launches performance monitoring of government funded services; AIHW on national working group advising on and providing data and indicators.

1998: CSDA outlines new framework for service providers, acknowledges unmet demand for specialist services, specifies approach to allocation of funds (based on AIHW work on indicators—AIHW 1997a), commits to nationally consistent data collection and performance indicators. Local area coordination and tailoring services to individual needs a feature for new approaches. Funding increases.

Data consistency: AIHW starts work on National community services data dictionary (AIHW 1997a:6) and participates in developing international disability classification with WHO.

Breadth of disability data recognised—new collaborations (continued)

New data: pilot CSDA MDS data (incomplete) published (AIHW 1995:267–74)—numbers of services and service types and a range of consumer data.


AIHW biennial Australia’s welfare reports provide more analysis of population data. In addition to prevalence of disability among people aged under 65 (12.5% and rates of 4% for ‘severe’ restriction) (AIHW 1999:216), analysis includes prevalence of major disability groups, ‘outcomes’ (income, time use, employment, education); also discuss Indigenous data (AIHW 1997a, 1999).
Table 6.1 (continued): The chronology of ideas, policy and national data in Australia over recent decades

<table>
<thead>
<tr>
<th>2000s</th>
<th>Ideas/philosophy/focus</th>
<th>Australian policy, services and assistance</th>
<th>Data (especially on support services)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rights and related instruments</strong></td>
<td>2006: Finalisation of the UNCRPD—people with disabilities have the same rights as all others; realisation of rights and freedoms, participation in society and access to the environment and full range of services and opportunities without discrimination.</td>
<td><strong>Services evolution</strong></td>
<td><strong>Data continue to improve and develop</strong></td>
</tr>
<tr>
<td>2001: WHO publishes ICF—new international model, framework and definitions. Significant for AIHW and ABS as national statistical agencies.</td>
<td>Focus on individual needs, efforts to link and transition between service types. De-institutionalisation gathering pace: rights to live in community.</td>
<td>Trends in snapshot day data published: for example, proportion in community or group home 60% in 1995 to 70% in 2000; more community living (non-institutionalisation for younger people) (AIHW 2001:292, 310).</td>
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<tr>
<td>Work related to Disability Discrimination Act on standards for building access, education, public transport.</td>
<td>Steady increases in support services expenditure, recognising unmet need. AIHW commissioned to report again on unmet need (for example, AIHW 2002, 2007c)—flags continued growth of unmet need because of ageing and other factors (AIHW 2007b:193).</td>
<td>Indigenous data available—show ‘severe’ disability rate at least 2.1 times that of other Australians (ABS &amp; AIHW 2005).</td>
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<tr>
<td>2009: NDA replaces CSTDA as the policy and financial agreement. Sets out Australian priorities for reform; for example, need for coordinated government efforts, person-centred approaches promoting choice, participation and inclusion, better measurement (AIHW 2009).</td>
<td></td>
<td>AIHW 2005: New ‘full-year’ CSTDA NMDS data included ‘outcomes’ data based on analysis of ABS population data (SDAC and other surveys with the disability module) using ICF framework for participation. Carers and the duration of informal care. Special box on Indigenous data and disability rates in population.</td>
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<td>Environmental factors included in ABS survey and disability identification in mainstream service collections.</td>
<td>AIHW 2009: includes new 2006 census data showing geographical spread of disability (uneven distribution, more common in disadvantaged areas).</td>
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</table>
### Table 6.1 (continued): The chronology of ideas, policy and national data in Australia over recent decades

<table>
<thead>
<tr>
<th>Ideas/philosophy/focus</th>
<th>Australian policy, services and assistance</th>
<th>Data (especially on support services)</th>
</tr>
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<tbody>
<tr>
<td><strong>2010s</strong></td>
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<tr>
<td><strong>Policies reflecting the UNCRPD—and a new era begins</strong></td>
<td><strong>Policy development informed by data</strong></td>
<td><strong>New data challenges</strong></td>
</tr>
<tr>
<td>Array of national policies in place, linked to UNCRPD: National Disability Strategy 2010, National Disability Agreement, NDIS. Era of NDIS begins. Insurance based scheme, uncapped expenditure. Provides packages of funding for individual ‘plans’. Choice and control are key objectives.</td>
<td>2011: Productivity Commission report recommends NDIS; 400,000 participants estimated (Productivity Commission 2011) based on ABS SDAC data. This figure can be compared (loosely) to 295,000 under NDA in 2009–10 (AIHW 2011a:143). NDIS becomes national policy, ‘launched’ at trial sites in July 2013. Emphasis on also directing people to mainstream services. Transfer of funding support from states/territories to Commonwealth (NDIA). Disrupts data collection arrangements, with no transition data arrangements planned. Collaborations in existing and new forms proceed (see Box 6.6)</td>
<td>NDIS participant numbers rising. Hard to relate NDA recipient numbers (apart from transitions from NDA to NDIS); no common data standards. Proposed redevelopment of MDS continues: emphasis on individualised funding, description of service interventions and measuring unmet need. 2013 AIHW biennial report notes 317,600 NDA users and provides some 5-year trends (AIHW 2013a). Analysis of participation in education and employment. Notes need for ongoing data on service provision (AIHW 2013a:232). In 2015, format of biennial report changed to follow ‘life course’; that is, data split by age groups. 321,500 using disability support service, including 4,200 transitioning to NDIS. Data on type of service, brief data on population. 13,610 people with approved NDIS plans (AIHW 2015). 332,000 using NDA services in 2015–16 (Australian Capital Territory did not collect data) (AIHW 2017a:305). Service type data presented. ‘During 2015–16, 3,500 NDA service users were reported in the DS NMDS as having moved to the NDIS, adding to the 9,600 reported to have made the transition since the start of the NDIS’ (AIHW 2017a:306). ‘According to the NDIA, 74,900 people with approved plans were participating in the NDIS (known as ‘active participants’) as at 31 March 2017 (AIHW 2017a:307).</td>
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</table>
Collaborations and the first Commonwealth/State Disability Agreement

The 1990s saw continuing development of legislative, policy, administrative and, increasingly, statistical infrastructure to operationalise the ideals that were now well articulated nationally and internationally; for example, in the *Disability Discrimination Act 1992*. National collaboration on service provision and policy was formalised, with the Commonwealth/State Disability Agreement (CSDA) setting out shared responsibilities for service provision and funding. Under the 1998 CSDA all governments committed to collaboration on nationally consistent data collection and performance indicators.

In 1992, the AIHW was given responsibility for statistics on a range of community services, including disability services. Major reports had called for greater consistency among the various disability data to inform policy development and program evaluation (Baume & Kay 1995; Office of Disability 1994; Senate Standing Committee on Community Affairs 1992). The AIHW responded with work on definitions, classifications and national data standards. Advisory arrangements were established to enable the AIHW to collaborate on disability data, definitions and consistency, including with representatives of governments, disability groups and non-government organisations (NGOs) (Box 6.1).

**Box 6.1: Collaboration—promoting quality in data design and use**

Collaboration and consultation have been hallmarks of the disability field in Australia for decades. Advisory and consultative mechanisms have broadened the input into policy development processes and data design. National agreements among governments have ensured collaboration on policy, service delivery and the design of nationally consistent data. The best results in all these areas are achieved when all stakeholders are informed and enabled to contribute to design and improvement (AIHW 2007a).

The ABS and the AIHW have advisory groups that include subject matter experts and representatives from the relevant fields and enable a wide range of those with interests—including those with lived experience of disability, advocacy groups, those with policy and program responsibilities and others—to help define the main questions the data must answer.
The AIHW’s biennial welfare reports have always included information on a broad scope of services—including disability income support, specialist disability support, mainstream (for example, AIHW 1993:300)—and reported on relevant data on these services, as well as on informal care provision. In 1993, the AIHW began development of a minimum data set (MDS) for CSDA services in collaboration with disability administrators from all jurisdictions. Initially the collection was a service-based ‘snapshot’ collection based on 1 day, with pilot data published in 1995. Collaboration and consistent data definitions became twin themes underpinning the framing and collection of data of importance to policymakers and the many other stakeholders in the disability field. The MDS data were immediately used in indicators of service provision by a national working group established under the Council of Australian Governments (COAG) to assist the Productivity Commission prepare its reports on government services (for example, SCRCSSP 1997 and annually thereafter). The AIHW concept of, and data for, ‘potential population’—factoring in the greater needs of people of Indigenous origin—were used in the denominator of these indicators (Box 6.2). The AIHW was commissioned to do a first study of demand for disability support services (Madden et al. 1996; AIHW 1997a, 305-307). Following the publication of the 1996 report, disability services funding was increased and unmet demand was recognised as requiring attention in the 1998 CSDA, which specified the approach to allocation of funds (also based on the indicators work of the AIHW).

Box 6.2: Performance indicators and resource allocation require the right denominators

COAG has been a driver of the use of indicators to monitor the outcomes of policies and services. For 20 years, the reports on government services have made extensive use of ABS and AIHW data as key ingredients for the indicators (for example, SCRCSSP 1997 and annually). The working group collaborating on disability services included membership of the 2 statistical agencies. The AIHW provided data for numerators (for example, on provision of different service types) while population data for the denominators made use of ABS SDAC data.

Denominators should reflect the size of the potential target population, and also make visible population groups with higher rates of disability. One such group is Aboriginal and Torres Strait Islander Australians. The AIHW initially used sub-national data to estimate that Indigenous disability rates could be approximately twice those of other Australians. These estimates were used as weights in denominators for indicators describing the rates of need and supply (AIHW 1997b, 2006). In 2005, it became possible to refine (and to a large extent confirm) these early estimates, when the results of a new survey, using similar disability concepts to the SDAC, enabled a comparison of national rates among Indigenous and non-Indigenous Australians (ABS & AIHW 2005; AIHW 2005:221).
International developments and their influence in Australia

In the following decade, the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) was finalised in 2006, with many countries proceeding to ratify it, including Australia in 2008. Australia developed a National Disability Strategy by the end of the decade (2010) to ensure the UNCRPD principles were integrated into policies and programs in Australia; services were to focus on individual needs rather than the service types available. The National Disability Agreement (NDA) 2009 replaced previous Commonwealth–State/Territory agreements as the national policy and financial agreement, focusing on social and economic participation outcomes, inclusion and choice.

The World Health Organization (WHO) framework and statistical classification—the International Classification of Functioning, Disability and Health (ICF)—was published in 2001 (WHO 2001), a few years before the UNCRPD. With its inclusion of key concepts such as participation in all spheres of life and environmental factors affecting functioning and disability, it is well aligned with the ideas of the UNCRPD and able to provide the definitions and infrastructure for statistics relevant to the UNCRPD. Also of importance to the ABS and the AIHW, as the national statistical organisations bound to follow international statistical standards, it proved capable of underpinning common national data standards for disability, to promote consistency across the various collections relevant to disability (Box 6.3).

More data available and used

The efforts of the previous decade were bearing fruit and data were able to be used to understand the experiences of people with disability, as a population group, their needs and access to services, consistent with current philosophies and policies (for example, AIHW 2005:202–69). The use of common definitions and ideas in both population data and disability support services data and the resulting relatability of collections were critical to this analysis (Box 6.4).

In 2006, disability questions were included in the Census of Population and Housing for the first time, providing a data source for small population groups and geographical areas. Again, the use of common data standards was essential to enable meaningful comparisons across data sets. Analysis of the Census data illustrated the uneven distribution of disability across Australia, with disability more common in disadvantaged areas (AIHW 2009:147–54).
Box 6.3: Data standards—for consistent, joined-up national data on disability

Common national data standards, in line with international statistical standards, promote consistency and efficiency in statistical design and collection. National disability data standards based on the ICF were developed by the AIHW, in collaboration with its multi-perspective advisory group, and then approved for publication and use by high-level national data committees (AIHW 2004).

The ABS also uses available international statistical standards such as the ICF and its predecessor. This clarity and stability has been one of the underlying strengths of the disability collections since 1981. Data standards underpin cross-sectoral policy-relevant data which are not dictated by any particular policy of the day. Population data can then be analysed from different perspectives, in different sectors, and meaningful trends across time compiled. The ABS includes a ‘disability module’ in many of its population surveys, enabling the comparison of people with disability and other Australians; for example, in terms of health, time use, income and expenditure (AIHW 1997a:336–8; AIHW 2010).

Common national data standards can also ensure that administrative data relate to population data (users of services being targeted subgroups of the population), and also that ‘joined-up’ data can be related across sectors to help build a coherent national picture. For example, a ‘disability flag’ based on these standards is used in the AIHW’s Specialist Homelessness Services Collection (AIHW 2013b). Identifiers can also be included in mainstream service collections to describe the accessibility of these services to people with disability.

With the increasing reliance on the CSDA MDS collection to describe services provided through the NDA (boxes 6.2, 6.4 and 6.5), it was decided to enhance it significantly by collecting data on all users of most service types. Collaborative redevelopment was carried out during 2000–2002 (AIHW 2003a). Many data items from the original snapshot collection were retained, and new items introduced. The validity of the ‘support needs’ data item for national data capture was confirmed; this was based on the ICF activities/participation domains to which many of the assessment instruments in use across the country could be mapped. The new collection was then able to provide ‘full-year’ (rather than a single snapshot day) data on, for example:

- service users—age, sex, Indigenous status, country of birth, disability group, support needs, presence of informal carer and carer arrangements; services received; whether received individualised funding
- services—location and service group/type, hours and weeks of operation.
Box 6.4: When population data and services data can be related, more informative analysis is possible—illustrations over time

The national disability services data collections included data items that were consistent and comparable, both across years and with those collected in national population surveys. Some insights thus made possible include:

- **The consistency of Indigenous and disability concepts across collections** enabled access to services to be compared. For example, of people receiving disability support services in 2003–04, 3.5% were Aboriginal or Torres Strait Islander people (AIHW 2005:239). This compared with 2.4% in the Australian population—higher, but not double as could be expected from the higher disability rates for the overall population (see Box 6.2). Rates of Indigenous use rose in later years, to around 6% (AIHW 2019).

- **Consistency of concepts of support needs and life domains across population and services data collections** enabled targeting of support services to be examined. For example, in 2009, 3.6% of the Australian population aged under 65 always or sometimes needed assistance with self-care, mobility or communication (AIHW 2011a:135-6). In 2009–10, 58% of disability support services users had such needs for assistance in these life domains, with even higher percentages needing assistance in other areas of life (AIHW 2011c:28). This comparison indicates effective targeting of these support services. (For more information on data and targeting support services see also Box 6.2 on potential population and AIHW 2002 on unmet need.)

- **Consistency of disability and carer concepts across collections** enabled the picture to be filled-out to include the significance of carers to the service sector. For example, in 2015, SDAC data showed that primary carers who were parents generally cared for their son or daughter for longer than other carers; 20% of parent carers had been caring for 20 or more years compared with 12% for spouse carers (ABS 2016). Services data from that year (2015–16) showed that most service users had a carer (66%) and that most (80%) of them were cared for by a parent (compared with 9.3% by their spouse or partner) (AIHW 2017b).

- **Consistency of ideas about disability across collections** enabled an overall picture to be assembled. The complexity of disability was recognised in AIHW’s biennial Australia’s welfare reports from the first, in 1993. These reports have some information on participation in all areas of life, access to support services and to mainstream services, and on the paramount importance of informal assistance provided by family and friends (for example, AIHW 2005:202–69).
The CSDA MDS became the Commonwealth State/Territory Disability Agreement National Minimum Data Set (CSTDA NMDS), and the first full financial year of data collection took place between 1 July 2003 and 30 June 2004.

A major innovation tested late in the life of the previous MDS collection was continued: the ‘statistical linkage key’ enabling the linkage of de-identified data across data collections without the need to identify individuals. This enabled the compilation of more reliable data on numbers of service users (avoiding double counting) and new service users, the improvement of data checking and quality, the analysis of multiple service use and the tracking of patterns from year to year (for example, AIHW 2011b, 2012). Importantly, the introduction of a statistical linkage key across multiple community service collections made it possible, for the first time, to explore the interface between disability support and other key services for people with disability, such as the then Home and Community Care program (AIHW 2014).

Since 2000, meaningful trend data were able to be assembled from both the snapshot MDS and full year NMDS collections. Combined with population data from the ABS and the expenditure data published in the COAG reports on government services (Box 6.2), the vision of a coherent national picture began to be realised. Trends in de-institutionalisation were visible in both population data and services data. Trends in service provision, use and funding could be tracked (Box 6.5).

Data gaps remained. For example, there was little or no information about people’s experience with disability services, although a consumer satisfaction survey was conducted as part of the report on government services in 2000 (Productivity Commission 2000). ‘Disability flags’ were seldom adopted in mainstream service collections, meaning that access by people with disability to these services remained largely invisible. Data about outcomes for people with disability (for example, successful post-school transition, appropriate housing), and how these related to both their goals and the services received, were available only through research and evaluation, rather than as a by-product of the service system. And, while limited data linkage had been undertaken, data about services used by people with disability remained generally limited to use of services funded under the CSTDA.
Box 6.5: Trends and tracking change—illustrations over time

Collecting comparable data over time allows meaningful trend data to be gathered. Some examples include:

- **De-institutionalisation trends**—population data revealed a strong trend towards living in the community, especially among younger people (aged 5–29) with ‘severe disability’ (from 1 in 7 living in institutional settings in 1981 to 1 in 100 by 2003) (AIHW 2008). Data on services revealed the complementary picture, with fewer service users in institutional settings (snapshot and full year data to 2005–06) (AIHW 2008).

- **Increases in numbers of services users and government expenditure**—the numbers of service users across all service groups increased by nearly 50% between 2003–04 and 2008–09 (to 279,000 individuals) (AIHW 2011b:viii). Meanwhile, total government expenditure on disability support services increased by 22% in real terms (in 2008–09 dollars), from $4.1 billion in 2003–04 to $5.2 billion in 2008–09 (AIHW 2011b:11). In 2016–17, there were an estimated 331,000 people using services provided under the NDA. The Australian and state and territory governments spent $7.8 billion on disability support services under the NDA (AIHW 2018:1, 9).

- **Changes in disability group**—the pattern of some primary disabilities has shifted over time. For example, the proportion of service users with an intellectual disability has decreased, and the proportion with psychiatric disability has generally increased (AIHW 2012:26).

- **Changes in support needs**—the support needs of service users have increased over time. For example, in 2017–18, 61% of disability service users always or sometimes needed assistance with self-care, mobility or communication compared with 58% in 2009–10 (see also Box 6.4) (AIHW 2011c, 2019).

- **Transition of NDA service users to the National Disability Insurance Scheme (NDIS)**—about 83,000 NDA service users are recorded as having transitioned to the NDIS since 2013–14 (AIHW 2019). These service users generally have a higher level of support need than other service users, and are more likely to need at least some assistance in 1 or more broad life areas. They are also more likely to have an intellectual or learning disability, live with their family, receive the Disability Support Pension and not be in the labour force.
A new era

The culmination of years of advocacy, adoption of the UNCRPD principles, and policy consultation and development resulted in significant and widely welcomed change in the most recent decade. The NDIS replaced a system that had been framed around service ‘types’ and service providers as grant recipients. It introduced a system that considers individual needs and provides a budget and package based on these needs directly to people with disability so they can purchase supports and services of their choice. Significant new funding was to be made available; according to Productivity Commission estimates in 2011, numbers of recipients were expected to increase from approximately 300,000 (as reported under the previous system) to over 400,000 (under the NDIS) (AIHW 2011a:143; Productivity Commission 2011).

The new administrative arrangements were dramatically different from the previous Commonwealth–state/territory arrangements. The new National Disability Insurance Agency (NDIA) became the sole administering authority, with responsibility for nationwide assessment and planning (and associated data) of individual packages and budgets. State and territory governments generally withdrew from administration, although remaining as major funders of the new scheme in partnership with the Australian Government. Collaboration with respect to disability statistics and related performance indicators continued, sometimes in new forms (Box 6.6).

In the process of administering the NDIS, the NDIA works with people with disability to understand their support needs, define a package of supports and monitor improvement in individual outcomes. The data captured as part of this process potentially provide an unprecedented opportunity to improve understanding of how supports improve the lives of people with disability and their families and carers.

With the massive challenges of launching such a large new scheme, the focus was on delivery and the launch at trial sites from July 2013. While new data on client satisfaction were collected—consistent with the focus on people with disability being able to shape the services they receive—less focus was put on national statistical reporting. Importantly, data continuity with previous systems was not prioritised. While there are flags in both the NDA and NDIS data systems to record people transitioning between these systems, they produce different estimates of the numbers transitioning over time. And the lack of consistency between the collections has limited (at least to date) the ability to publicly monitor whether service access has improved for people in the NDIS compared with those in the previous system.
Box 6.6: Statistical collaboration post introduction of the NDIS

Collaboration on statistical data and reporting continued, albeit via processes less visible to the community.

Collaborative arrangements included:

- The NDIA worked with State/Territory and Commonwealth governments through the COAG Disability Reform Council to develop a new performance framework for reporting about the NDIS in their quarterly reports; announced new data insights forums commencing in July 2019.

- The ABS continued to collaborate widely with government and non-government stakeholders on the content of its Survey of Disability, Ageing and Carers (SDAC) and other statistical products, through its SDAC Steering Committee and Reference Group.


- The Productivity Commission consulted widely on its Review of the National Disability Agreement and, in its role as secretariat for the Steering Committee on the Review of Government Service Provision, commenced work with NDIA, ABS, AIHW, DSS and states/territories to develop new indicators for inclusion in the Report on Government Services and a revised definition of the ‘potential population’ for specialist disability support services, still in development.

- DSS commenced community consultation in 2019 on a new national disability strategy for beyond 2020, including its potential data requirements.

- Under the auspices of the Australian Digital Council, several states and DSS are leading work with the NDIA and AIHW on a proposal to develop a new National Disability Data Asset (see below).

In its role as system administrator, the NDIA began publishing data on participant numbers, plan take-up and participant satisfaction. Other statistical reporting continued to provide information about non-NDIS disability services (for example, AIHW 2019) and a range of disability indicators under the NDA (for example, SCRGSP 2018). In 2019, the NDIA contributed some data to the annual report on government services, which notes that ‘performance information on the National Disability Insurance Scheme (NDIS) is currently under development’ (SCRGSP 2019:15.1).
Specifically on data, the Productivity Commission observed

“Performance reporting is not possible without access to adequate data. An absence of adequate data undermines the basis for performance reporting, and can adversely affect policy making. Currently, performance data for the NDA is (almost exclusively) based on the ABS’ Survey of Disability, Ageing and Carers (SDAC) and the Australian Institute of Health and Welfare’s Disability Services National Minimum Data Set. The ongoing availability of data from these sources is uncertain, and there is a risk that some data may not be available—particularly data on use of services provided outside the NDIS…”

(Productivity Commission 2019:20)

The future of disability statistics

By the early 2000s, the development of reliable and stable statistics on the need for and supply of disability supports, based on common information standards and classifications, had set up Australia well for exciting policy developments in disability support (culminating in the NDIS). Already, the AIHW had reported on unmet demand for disability supports, and the Australian Government had increased funding, following a campaign by disability organisations which used the AIHW results as a base. Numbers of recipients of support services had risen considerably (Box 6.5).

The development and enactment of the NDIS has been a dramatic response to unmet need. The ABS SDAC provided the data base for the NDIS cost estimates by the Productivity Commission in 2011, which were generally confirmed by the Australian Government Actuary (2012) and have formed the base for funding the NDIS up to the present.

The NDIS process provides considerable potential to learn more about disability in Australia and the related support needs, how they are met and with what outcomes. First a person must apply and provide a range of data required to be accepted as an NDIS participant. Then the person’s support needs are described in a support plan proposal and assessed by the NDIA. Once a support package is in place, supports are bought by participants, and the majority are paid for by the NDIS.

The result of this process is that the NDIA is amassing a large amount of information on a wide range of people with disability who have support needs, including those who apply but are not accepted as participants. At the same time, the state/territory-based funding of organisations to provide support services is ending, closing down the source of the previously published disability support statistics.
The NDIA publishes a range of material, including quarterly reports (see www.ndis.gov.au/about-us/publications/quarterly-reports) and, since July 2019, a new website, which improves data accessibility (www.ndis.gov.au/about-us/data-and-insights). Together these sources provide data on NDIS performance indicators, some statistical information on applicants, including their type of disability and the NDIS calculation of level of functioning, participant outcome reports, family and carer outcome reports, thematic analyses on special topics, and information on participant satisfaction. Quarterly reports are made available to the public, within approximately 6 weeks of the end of the quarter, in the form of reports and dashboards.

It is understood that the NDIA is working with other agencies to consider the potential to link NDIS data with other sources (see also below).

The potential for improved statistics has not yet been fully realised. The performance indicators published each quarter by NDIA relate mostly to NDIS performance and sustainability, not to what participants receive. For example, at the participant level, there is no information on the size of, or supports included in, packages. The NDIA also does not supply de-identified unit record data on participants, applicants, supports provided or any information on outcomes to statistical agencies. In addition, the NDIS data standards do not completely align with those developed for the Disability Services National Minimum Data Set (DS NMDS) collection and followed by each state/territory and service providers, and the data dictionaries in use by the NDIA are not freely available. Not having access to metadata creates difficulties in interpreting and understanding the data produced by the NDIA, including how it relates to data produced under the previous system.

There is therefore a challenge and an opportunity to ensure that the community is fully informed about the provision and recipients of disability supports. At the time when the funding of disability supports by the community is rapidly increasing, it is vital that the NDIA and the statistical agencies report statistics and performance information that contribute to a broad picture of people with disability and their supports from not only the NDIS, but also from other services such as health, education and aged care.

These recognised challenges to ongoing national statistics come about as an unintended consequence of dramatic improvements in national arrangements for support of people with disability. It is timely to recall the importance of national statistics for policymakers, affected individuals and the broader community (see Box 6.7).
Box 6.7: National statistics—why, what and how

Australian statistical practice follows the United Nations fundamental principles of official statistics. These principles recognise that official statistics ‘provide an indispensable element in the information system of a democratic society, serving the Government, the economy and the public with data about the economic, demographic, social and environmental situation’ (Principle 1, United Nations 2014). The necessary data may be drawn from all types of sources, including administrative records. Statistical agencies must observe scientific principles and ethical standards, and use international concepts and classifications to promote consistency and efficiency. Methods and processes should be made public. Individual data must be kept confidential, with data being released as statistics.

The AIHW and the ABS follow these principles in producing national statistics. In addition, the AIHW presents a biennial welfare report to the Minister for Health containing information and statistics about: the provision of welfare services to the Australian people; and an outline of the development of welfare-related information and statistics.

There are accepted methodologies for the design of official statistical collections and large national databases. These methods are sometimes set out in guides explaining the principles and processes for statistical collections (for example AIHW 2007b; WHO & UNESCAP 2008). Such resources expand on design themes including: the importance of collaborative planning and being clear about purpose and the key questions to be answered; the importance of stakeholder consultation, collaboration and field testing; and using data standards to promote quality and consistency. The full cycle of design, collection and publication is completed when useful and respectful statistics that satisfy the user purposes and needs originally agreed are publicly released.

There are opportunities to improve national statistics about the experience of people with disability. For example, the development of data integration agencies by the Australian Government—alongside the now well-established data linkage capacity of the AIHW, the ABS and many states and territories—provides far more capacity to bring data together, under well-established data protection and ethics arrangements, to describe and understand the situation of people with disability. Building on this, in late 2018, the Australian Digital Council agreed to progress a pilot to build a longitudinal and enduring cross-jurisdictional data asset to improve services for people with disability (ADC 2018). The pilot development is being led by several state governments, the Australian Government and the AIHW, in collaboration with the NDIA.
If progressed, such a data asset has the potential to solve a problem common to both previous and existing data about disability; namely the need for improved understanding of the extent to which people with disability access services provided outside of the specialist disability system, such as mental health, housing and education services. Depending on its shape, it may also improve understanding of the pathways and outcomes of people with disability over time, including pre- and post-NDIS implementation.

There may also be opportunities for improving disability data via development of a new national disability strategy for beyond 2020. The recent review of the NDA highlights some of the data challenges in understanding outcomes for people with disability, recommending it be revitalised and better integrated with the National Disability Strategy to:

- ‘improve cohesion in intergovernmental arrangements for disability policy …
- clarify the roles and responsibilities of governments in the NDA …
- improve accountability mechanisms under the NDA’ (Productivity Commission 2019:5).

This review highlights that developing an overall plan for disability data is important because not all people with disability will be NDIS participants. A new national disability strategy for beyond 2020 can hopefully include such a plan. The combination of continued support for regular conduct of the ABS SDAC (with SDAC 2018 due for release in late 2019), improved access to NDIA data, considering how to capture information about specialist disability services offered outside the NDIA, and data linkage all have great potential to provide a more complete picture of people with disability in Australia.

At the same time, there is an urgent need for improved data collection on the rapidly growing disability support industry and workforce. The industry and occupation classifications used by the ABS are not able to distinguish employees of the aged care and disability support sectors. The ability to separately identify these occupations has been identified as a much needed improvement.
The information vision that has driven disability data development and analysis in recent decades has served the community well—to ensure data are talking the same language as people and policy, and are consistent across sectors. This vision requires ongoing effort to develop and use national data standards across sectors, including attention to the common concepts and language in international classifications such as the ICF. Administrative data derive from operational management systems and these also should be designed in awareness of these standards; there is a general absence of sound ICF-based assessment tools for functioning and disability. ‘Joined-up’ analysis is further aided by technical processes such as statistical linkage keys and identifiers in mainstream services, used appropriately with full respect for individual confidentiality and privacy. The vision requires that data are available in various forms to the diversity of stakeholders, to inform the public, foster research and to hold up a mirror to public policy.

The interplay of philosophy, advocacy, reform, policy and statistics created this information vision. It is built on communication: ongoing awareness, collaboration and consultation across sectors. Ideas and advocacy have driven policy reform, and advocates have been involved in policy consultations and development. Statisticians have participated and generated consultation about data, and have designed data collections and analyses to monitor policy, so as to answer questions asked by advocates and policymakers, and inform Australian society generally.

The NDIS is a historic policy and service shift—the realisation of ideas, goals and work over many years. This article has described how national statistics were an agent of these changes. Now national statistical reporting must keep pace with change, based on collaboration among all those involved in the fruitful interplay of ideas, policy and national data.
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Elder abuse: context, concepts and challenges

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This article is an overview of the current state of knowledge about elder abuse in Australia. We explore some of the definitional issues, including cultural considerations; provide examples of the types of activities being undertaken in Australia to prevent or tackle elder abuse; and outline the current state of research, including what we see as the main gaps. This article is by no means comprehensive, and we recommend that readers interested in elder abuse explore the ‘Further reading’ and ‘Reference’ sections for more information.

What is elder abuse?

The most commonly accepted definition of elder abuse is ‘a single, or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust which causes harm or distress to an older person’ (WHO 2018). Within this definition, the most commonly described forms of elder abuse are financial, psychological, physical, sexual and social abuse and neglect.

Elder abuse comprises 5 components: the person being abused (older person); the acts or omissions (single, or repeated act, or lack of appropriate action); the abuser (not specified in the above definition); the pre-conditions (any relationship where there is an expectation of trust); and the impact (harm or distress) (Kaspiew et al. 2016). There is considerable debate around each of these components; for example, should the definition of an older person be restricted to chronological age? What constitutes a relationship of trust? How might carer stress shape abuse? Should intentionality be a pre-determining factor? So, while the World Health Organization (WHO) definition is the most generally accepted, the definition of elder abuse is by no means settled.

There is also debate about the relationship between elder abuse and family violence; in particular, whether elder abuse should be seen as a subset of family violence and therefore included within family violence policy reforms and service responses, and/or seen as a specialist area requiring separate policy and service responses. There are certainly overlaps—elder abuse (outside of formal care services) occurs largely within families and there are many common risk factors (Joosten et al. 2017). Understanding and responding to elder abuse is increasingly important given the growing population of older Australians (Box 7.1).
Box 7.1: Demographics of older Australians

Older Australians are a growing proportion of the total population. In 2018, 15.7% of Australians (3.9 million) were aged 65 and over, and 11.6% (2.9 million) were aged 55-64; these proportions are projected to grow steadily over the coming decades. Women make up more than half of the population in older age groups; up to 62% (312,000) of Australians aged 85 and over are women (Figure 7.1).

Figure 7.1: Population aged 55 and over, by age and sex, June 2018

How common is elder abuse?

To date, there has not been a population-level prevalence study of elder abuse conducted in Australia. However, a paper from the Australian Institute of Family Studies estimated the prevalence of elder abuse to be between 2% and 14%, with neglect occurring at possibly higher rates (Kaspiew et al. 2016). An earlier review of small-scale prevalence studies in Australia found estimates ranging from 2.3% to 5.4% (Kurrle & Naughtin 2008).

The international literature provides a wide range of estimates depending on the definitions used, the populations sampled and the perpetrators included (Kaspiew et al. 2016). For example, a study from the United Kingdom found that 2.6% of people aged 66 and over living in private households had experienced mistreatment from a family member, friend or care worker (Biggs et al. 2009). When this was extended to include neighbours and acquaintances, the overall prevalence increased to 4.0% (Biggs et al. 2009).
A meta-analysis of prevalence data from 28 countries, mainly from Europe, the Americas and Asia, suggests 1 in 6 adults aged 60 and older living in their community is experiencing elder abuse (Yon et al. 2017). This equates to roughly 141 million people worldwide. However, the data included in this meta-analysis has significant variations based on definitions and samples used in the studies as well as income classification, geographical and cultural context (Yon et al. 2017). Fortunately, preparation for a national Australian prevalence study is currently underway (see ‘Policy and legal context’ section).

Common scenarios

A common elder abuse scenario for older Australians who approach services such as Seniors Rights Victoria involves an adult child coming to live with their older parent/s because they have nowhere else to live. Their own housing arrangements may have fallen through because of a relationship breakdown or failure to pay the rent due to gambling or drug or alcohol dependence. Put simply, they bring their problems with them. They may: incur expenses and fail to pay for them; force the older person to disclose their banking details and steal their money; or threaten them (for example, by withholding access to grandchildren) into handing over money, assets or financial power of attorney.

Analysis of 2 years of data from Seniors Rights Victoria revealed that 92% of abuse was by a family member and 67% by an adult child (Joosten et al. 2015). A key risk factor was cohabitation with the perpetrator, except for financial abuse, in which case living alone was a risk factor. In this study, incurring bills for which the older person was responsible, and taking up residence with them for reasons other than the older person's benefit, were the most common forms of financial abuse. Abuse, neglect or misuse of power of attorney was also common and included failure to consult an older person or act in accordance with their direction when the older person had capacity (Joosten et al. 2015).

Elder abuse also occurs in the context of both formal and informal care relationships. People with dementia are uniquely vulnerable to abuse (Cooper et al. 2010; Dong et al. 2014; Hansberry et al. 2005; Spector & Nguyen 2016), particularly within residential aged care settings, where there is a general lack of education on dementia (Sykes 2018) and high levels of neglect (Wiglesworth et al. 2010). Recent Australian media exposure—for example, the Australian Broadcasting Corporation’s Four Corners program (ABC 2018a, 2018b)—has led to the Royal Commission into Aged Care Quality and Safety, which is due to report in April 2020.
At present, however, much elder abuse goes undetected, especially neglect, which rarely comes to the attention of elder abuse services, but may be picked up by health, police, local government or aged care services, especially those that go into the older person’s home. By its very nature, neglect is hard to detect and respond to. In these situations, the older person is generally unable to adequately care for themselves and is relying on others to do so. Consequently, they are rarely in a position to report the abuse.

**Cultural considerations**

Perceptions of what elder abuse is, the forms it takes, and responses to it are culturally mediated (Kosberg & Garcia 2013; Patterson & Malley-Morrison 2006). What constitutes abuse in one culture may not be considered abusive behaviour in another, which makes it difficult to identify and address (Bagshaw et al. 2013; Choo et al. 2013). For example, financial abuse is rarely mentioned as a form of abuse by older African Americans, even though it regularly occurs in their communities (Tauriac & Scruggs 2006). Similarly, psychological abuse of older people is perceived as the most severe form of elder abuse in Brazil, even though physical abuse is commonplace (Bezerra-Flanders & Clark 2006). In Israel, lack of respect is tied to elder abuse (Rabi 2006), and in Japan, older people may be blamed for their personal failings (Arai 2006). In India, admission into residential aged care is perceived by many in the community as a form of elder abuse where older relatives are ‘abandoned’ or ‘dumped’, and there are explicit laws, such as the *Maintenance and Welfare of Parents and Senior Citizens Act 2007*, that mandate fines and prison sentences for kin who do not care for older relatives (Brijnath 2008, 2012).

How different cultural groups respond to elder abuse is highly variable. In some parts of the world, elder abuse may remain under-reported because it is a taboo subject. In other instances, elder abuse may be perceived as part of a broader spectrum of abuse, and shaped by factors such as poverty, deprivation and violence that also affect other vulnerable groups, such as children, women and people with disability. Therefore, older people are not unique in their communities in experiencing abuse and trauma (Kosberg & Garcia 2013).

**The Australian context**

In Australia, there is limited research about the cultural specificities of elder abuse among culturally and linguistically diverse (CALD) groups and Aboriginal and Torres Strait Islander communities. From what is available, the evidence suggests that older people from CALD backgrounds are particularly vulnerable to financial abuse because language and literacy barriers can make them dependent on others for translation and
for assistance with their finances, including paying bills (Wainer et al. 2011). They are also likely to be socially isolated and unwilling to disclose mistreatment or neglect for fear of the social stigma associated with abuse (Zannettino et al. 2015). For example, 2 forms of elder abuse frequently reported by older migrants are cultural isolation from their communities, and threats of deportation for those on dependent family visas (Brijnath et al. 2018). Post-migration stress, such as changes in social status, financial difficulties and material pressures—as well as other stresses, such as attempts to comply with traditional cultural expectations in a new environment—may influence the occurrence of abusive behaviour, particularly if they lead to family members’ frustration or impatience with the older person (Petosic 2015). Overall, significant unknowns remain about how elder abuse is constructed and experienced in CALD communities in Australia. This is a significant gap in our knowledge, given that Australia is an increasingly ageing and multicultural society, with 1 in 3 people aged over 65 having a CALD background (AIHW 2018). Any intervention needs to consider the importance to the older person of emotional connections with family, community and culture (Zannettino et al. 2015). Strategies that focus on an individual rights-based approach may be inappropriate in some CALD communities where a high value is placed on collective ownership and decision-making within families (Wainer et al. 2011). Thus, there is a need for further research to better understand how diverse cultural norms and expectations can affect help-seeking behaviours and the reporting of elder abuse (Dong 2013).

From the limited evidence available, financial abuse appears to be the most common form of elder abuse among Aboriginal and Torres Strait Islander communities (Boldy et al. 2005; Kurrle & Naughtin 2008). For Indigenous Australians, life expectancy is lower than for non-Indigenous Australians, and because of this, Indigenous Australians aged 50 and over are eligible for aged care services. Likewise, definitions of elder abuse need to apply to those aged 50 and over. Many older Indigenous Australians are in a poor social and economic situation, which derives from the historical trauma resulting from the Stolen Generations, and land and cultural dispossession. This means that many older Indigenous Australians are particularly vulnerable to elder abuse, as explained by the former Aboriginal and Torres Strait Islander Social Justice Commissioner, Mick Gooda. But another outcome of this history is that Indigenous elders and families are particularly sensitive to outside interventions and prefer that recognised community representatives and custodians of culture are involved in safeguarding older individuals against abuse (Gooda 2012). Box 7.2 discusses some of the work being done to better understand elder abuse among Indigenous Australians.
Box 7.2: Indigenous Australians and elder abuse

There is limited research available in relation to the abuse of older Aboriginal and Torres Strait Islander people. Society-wide factors, such as ageism and discrimination, affect both Indigenous and non-Indigenous Australians. However, the experiences of older Indigenous people reflect a unique cultural and historical context. As a first step towards understanding Indigenous Australians’ experience with elder abuse, the AIHW has been working on a project together with the Attorney-General’s Department reporting on vulnerabilities of Aboriginal and Torres Strait Islander people aged 50 and over, with a focus on risk factors and protective factors that can allow or inhibit abuse. The AIHW has analysed data from over 20 sources—from social surveys to administrative records covering demographic characteristics of this cohort, along with outcomes and service use information related to aged care, health and functioning, social and emotional wellbeing, housing circumstances, education, employment and financial security, alcohol and substance use and safety (AIHW 2019).

Risk factors

The risk factors for elder abuse vary according to the type of abuse, but for the older person are largely related to increased vulnerability due to cognitive, physical, psychological, cultural or social factors. These include functional dependence and disability, poor physical or mental health, poverty and social isolation (Joosten et al. 2017). As noted earlier, risk factors can vary, or be heightened, depending on an older person’s family circumstances or care relationships, as well as their cultural background and proficiency in English. For financial abuse, living alone is a risk factor—especially for older men (Jackson & Hafemeister 2011). Another more recently identified risk factor for financial abuse is having a family member with a sense of entitlement to the older person’s property, characterised as ‘inheritance impatience’ (Bagshaw et al. 2013).

Risk factors for the perpetrator include psychological or social factors, such as mental health, gambling or drug dependence, social isolation and dependency on the older person, as well as homelessness and poverty. Caregiver stress can also be a risk factor for abuse (Johannesen & LoGiudice 2013).
Policy and legal context

Elder abuse is a complex policy area because it involves the Australian Government and state and territory governments. Just as risk factors cut across mental health, housing, legal, banking, aged care, education, substance abuse and gambling policy areas, so too must government policy responses. An all-of-government approach is needed.

One of the most comprehensive reviews of elder abuse laws and legal frameworks in recent years was conducted by the Australian Law Reform Commission (ALRC). This review examined existing Commonwealth laws and legal frameworks as they relate to safeguarding older people from abuse and how these interact with state and territory laws (ALRC 2017). The ALRC’s main recommendation was for government to develop a national plan to reduce elder abuse which lays out an integrated national service, policy and legal response. The report also called for improved responses to elder abuse in aged care, better protection of older people from financial abuse, and adult safeguarding regimes. The *National Plan to Respond to the Abuse of Older Australians (Elder Abuse) 2019–2023* (Council of Attorneys-General 2019) was launched in March 2019. It details the priority areas for action over the next 4 years by all governments, including strengthening service responses, helping people better plan for their future and strengthening safeguards for vulnerable people.

The ALRC’s report also called for a national prevalence study of elder abuse. On 19 March 2019, the Australian Government announced it will be undertaking this work. Several research reports have laid the foundation for the study and advanced a national research agenda on elder abuse, including *Insights into vulnerabilities of Aboriginal and Torres Strait Islander people aged 50 and over: 2019—in brief* (AIHW 2019) and *Insights into abuse of older people—analysis of Australian Bureau of Statistics datasets* (Hill & Katz 2019).

Finally, the Age Discrimination Commissioner, the Hon. Dr Kay Patterson AO, is a strong advocate for preventing elder abuse, building on the work of her predecessor, the Hon. Susan Ryan AO. Dr Patterson has chosen elder abuse as 1 of 3 key areas of focus for her term in office. Apart from actively supporting the work of elder abuse prevention and support programs across Australia and the work undertaken by the Attorney-General’s Department, Dr Patterson also advocates for reducing ageism in the workforce and in the general community.
Support services/interventions

Responses to elder abuse are complex and multidimensional. *Everybody’s business: stocktake of elder abuse awareness, prevention and response activities in Australia, March 2019* (Commonwealth of Australia 2019) provides a comprehensive overview of legal, policy and service responses to elder abuse in Australia. For individuals experiencing abuse, services include:

- helplines, available in every state and territory for confidential advice, information and referrals
- legal assistance (both specialist elder abuse services and general community legal centres)
- collaborative practice models, where lawyers, health workers, social workers and advocates work together to support the older person
- family inclusive services, providing mediation and counselling for family members, including the older person
- advocacy services
- other case management services.

To assist the workforce gain a better understanding of elder abuse and the responses required, there are numerous educational resources available in Australia, including online courses, videos, service pathways and screening tools.

Community-awareness campaigns about elder abuse are another strategy for preventing and responding to elder abuse. More recently, campaigns and initiatives designed to reduce ageism as an underlying cause of elder abuse have been initiated. One example is EveryAGE Counts, a coalition of organisations for social change and advocates for older Australians led by The Benevolent Society. In addition, there are national networks and peak bodies that coordinate activities across and within states and territories as well as advocate for elder abuse to be a focus of government.

What works to prevent or stop elder abuse?

It is difficult to draw robust conclusions about the effectiveness of interventions to prevent or stop elder abuse (Daly et al. 2011). There are 3 reasons for this. First, elder abuse covers many types of abuse that occur in a range of contexts, perpetrated by a variety of people and within different relationship types. This makes it very difficult to identify a single intervention that can prevent or address elder abuse as a whole. Second, it is difficult to compare interventions, as they differ depending on the type and nature of the abuse. Third, there are ethical issues in conducting elder abuse research, particularly in relation to having a control condition (that is, no intervention), and asking people who are in a distressing situation to consent to participation in research.
Despite these limitations, there are interventions that show promise for some aspects of elder abuse. For example, family mediation, if initiated early, can be effective in resolving abuse as it enables the older person to: identify the problem and be heard; name the abuse and the perpetrator’s behaviour; and discuss options—this empowers the older person to make decisions (Bagshaw et al. 2015). Family mediation may also be preferred by older people rather than legal responses, as it is not perceived as being as adversarial and suggests resolution of conflict (Braun 2012; Hobbs & Alonzi 2013).

Some multidisciplinary approaches can also be effective in resolving elder abuse. These include various combinations of counselling, case management, legal interventions, medical care and financial controls (Joosten et al. 2017). For example, a social worker and lawyer intervention in New York found 68% of clients who received the service had a reduced risk of mistreatment (Rizzo et al. 2015). Another United States study compared a team consisting of a nurse and social workers with a social worker alone (Ernst & Smith 2012) and found that the team approach resulted in greater risk reduction.

Routine screening of all older people may be a way to detect and respond to elder abuse. However, there are several barriers to routine screening (Cooper et al. 2009; Dow et al. 2013; Penhale 2010; Schmeidel et al. 2012; Tilse & Wilson 2013), such as:

- varying levels of understanding about elder abuse by health professionals
- the cost of implementation
- inadequate training on the signs of elder abuse, particularly financial abuse
- limited access to standard screening and assessment tools
- inadequate organisational support to aid the reporting of identified cases of elder abuse.

Older adults also face barriers to disclosing abuse, such as:

- a lack of understanding about what constitutes abusive behaviour and therefore an inability to recognise when it is occurring (Taylor et al. 2014)
- fear of retaliation from the perpetrator (Roulet et al. 2017)
- feelings of guilt if the perpetrator is a child (Moon & Benton 2000)
- a desire to protect the perpetrator from negative consequences that may result if the abuse was reported (Jackson & Hafemeister 2015).

Common criticisms of the tools themselves include using outdated terminology, asking binary questions, asking multiple questions at once, failure to consider the older person’s cognitive status, failure to consider how culture intersects with elder abuse, and failure to outline a referral pathway to those administering the tool (Brijnath et al. 2018). Providers emphasise that a screening tool must promote trust and rapport between the assessor and the older person in order to solicit a story on this sensitive subject (Brijnath et al. 2018).
Finally, there is some evidence for supportive interventions for family carers, such as psycho-education (Hebert et al. 2003; Phillips 2008), but little research has been done with perpetrators who are not carers. The STraTegies for RelaTives (START) study implemented a one-to-one, face-to-face 8-week psycho-education intervention for family caregivers of people living with dementia. This study found a reduction in depression and anxiety following the intervention but no statistically significant reduction in conflict (Cooper et al. 2016). However, as mental health issues are key risk factors, this approach may be promising for reducing elder abuse within care relationships. The START study is currently being replicated in Australia using videoconferencing as a way to enable reach into rural and remote areas (Panayiotou et al. 2018).

Unfortunately, to date, there is little evidence for the success of awareness-raising campaigns or workforce education. A recent Cochrane review of interventions to address elder abuse concluded that ‘it is uncertain whether targeted educational interventions improve the knowledge of health and allied professionals and caregivers about elder abuse’ (Baker et al. 2016). At the same time, most health and aged care professionals still lack knowledge and confidence in how to respond to abuse (Dow et al. 2013, 2018).

**What is missing from the picture?**

Population ageing, social change and increased pressures on resources heighten the risk of elder abuse. As governments around the world, including in Australia, grapple with how to address this complex and taboo subject, what is increasingly obvious is the need for robust research to guide evidence-informed policy and practice. To this end, much remains to be answered and we conclude by briefly outlining the critical knowledge gaps. Importantly, these gaps are neither presented in order of importance nor should they be sequentially considered; rather they need to be tackled concurrently and swiftly.

First, developing common legal understandings of what constitutes elder abuse, and how to recognise it, are critical. Definitions are influenced by the context in which they operate. Legal definitions are more prescriptive in nature, whereas support services are required to adopt a more holistic approach to address service-planning needs. While definitional complexities may present an obstacle, they do not necessarily prohibit developing a common language and understanding of elder abuse. Common understandings can also streamline tools and training directed towards providers to enhance the detection of abuse and, by extension, protection of older people.
Second, establishing the national prevalence of elder abuse—and knowing where ‘hotspots’ might be—is an important epidemiological baseline. Without knowing the true prevalence, it is difficult to understand the scope of the problem, key patterns and trends. This information is required by policymakers to allocate appropriate resources to tackle elder abuse, and to determine how effective interventions have been. To this end, the recent announcement of the national prevalence study (see ‘Policy and legal context’ above) is most welcome.

Third, related to prevalence, we also need a deeper understanding of the impact of elder abuse on the older person, their families and perpetrators. As has been highlighted, diminished health, increased risk of poverty, social isolation and substance abuse are some risk factors associated with elder abuse. How these risk factors converge to shape the life trajectories of older people, their families and communities in the context of elder abuse need to be studied and measured to accurately respond to its damaging and long-lasting effects.

Finally, robust and complex interventions are needed to address elder abuse. A multidisciplinary systems-wide approach must be adopted; one which is consistent, stepped and places the needs of older people at the centre. Because the topic has remained hidden for so long, ad hoc, siloed and inconsistent approaches continue to inform current practice. Many lessons may be learnt from interventions to tackle other forms of abuse and family violence, but it is crucial that these be adapted to take account of the unique facets of elder abuse.

With the ageing of the population in Australia and globally, elder abuse is a serious and potentially growing problem. Unfortunately, research in this area is in its infancy and data are scarce. In the words of the ALRC report: ‘Ageing eventually comes to all Australians and ensuring that all older people live dignified and autonomous lives free from the pain and degradation of elder abuse must be a priority’ (ALRC 2017).
Further reading

For more information on elder abuse, we recommend the following online resources.


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An innovative linked data platform to improve the wellbeing of children—the South Australian Early Childhood Data Project

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The past decade has seen a substantial increase in the use of administrative data in both academic and policy research. In the 2016–17 financial year, 259 projects across Australia received linked public data from data linkage units—nearly double the number of projects receiving data in 2013–14 (Population Health Research Network 2018). Over the same period, state and territory governments have invested in internal capability to use data to inform policy and service delivery decisions (for example, New South Wales Government 2018; South Australian Government 2019; Victorian Government 2018). In 2018, the Australian Government response to the Productivity Commission Data Availability and Use inquiry (PM&C 2018) resulted in a range of policy and legislative measures to increase use of public data. A common theme of the response is enabling public benefit while preserving privacy and security, and building community trust.

In this context of increasing access to public data in Australia, this article describes the South Australian Early Childhood Data Project (SA ECDP), a leading example of a de-identified, linked state and Commonwealth administrative data platform, underpinned by principles of public good use.

**Public data should be used for public good**

There is a clear need to demonstrate public good in the use of public data. This builds broad community support—a ‘social licence’—for use of linked administrative data by government and researchers. The principle of beneficence for ethical research involving humans demands that risks to privacy posed by data linkage are outweighed by the benefits (NHMRC et al. 2018). What public good looks like across the broader spectrum of data use in Australia varies, as the administrative data linkage, use and sharing environment is changing rapidly. The Data Availability and Use inquiry (Productivity Commission 2017) and the Australian Government response (PM&C 2018) have highlighted how far Australia has moved from a traditional focus on ‘one-off’ data linkage for research. Administrative data are now recognised as an important renewable national resource with potential to create added value for government, non-government and community benefit. Balancing benefit, trust, security and privacy in the use of linked administrative data are key to achieving public good.
Achieving public good through use of public data was the founding philosophical principle of the SA ECDP. At inception, this was modelled on more traditional methods of research translation, operationalised through vehicles such as National Health and Medical Research Council (NHMRC) Partnership Grants. This meant proposing discrete research questions with measurable academic outputs, such as peer-reviewed publications and conference presentations. Since that time, the use of the SA ECDP in collaboration with government partners has grown exponentially. This has led to a change in the way of working, understanding that publishing academic papers in high-quality journals will not by itself improve service delivery. The SA ECDP now operates with 2 additional principles—those of rapid response and returning data to source. Rapid response means attempting to provide answers in the short time frames often demanded by policymakers and those who deliver frontline services. Returning data to source means giving priority to communicating research findings back to frontline workers who collect and input the data—this is essential to any data collection quality-improvement process—and increasingly to community groups where possible.

The SA ECDP is a platform directly increasing government use of the best evidence available to inform real, sustainable service change that will contribute to improving outcomes for all children (Box 8.1).

**What have we learned from the SA ECDP?**

This section showcases snapshots from the SA ECDP that form part of briefs and reports delivered to the South Australian Government. Three case studies are presented: a public health approach to child maltreatment; describing priority populations with high prevention potential; and redesigning a model of care. They represent just a small fraction of outputs generated from the SA ECDP to various parts of government. The majority of the work using the SA ECDP is currently confidential within government. However, many of these reports are likely to be published once they have been considered and approved by the relevant agencies.

The case studies that follow are based on a ‘whole-of-population’ view that includes the experiences of Aboriginal and Torres Strait Islander communities, but the data are not presented specifically for Aboriginal and Torres Strait Islander people. While the SA ECDP is being used to understand Aboriginal and Torres Strait Islander experiences, the use of those data is governed by Aboriginal and Torres Strait Islander governance groups and cannot be used without their express permission. Aboriginal and Torres Strait Islander–specific data are only discussed in the following case studies where they have previously been released subject to these governance arrangements.
Box 8.1: What is the South Australian Early Childhood Data Project?

The SA ECDP holds linked de-identified administrative data for about 450,000 South Australian children born from 1991 onwards, and their parents and carers. It is an ongoing sustainable platform that receives data updates on a regular basis. Since 2009, nationally competitive research grants and government funds have been used to build the SA ECDP into one of the most comprehensive linked data resources in Australia, able to track children’s health and welfare from before birth into early adulthood. The recent addition of family files allows us to examine intergenerational processes and locate twins and siblings within families.

The SA ECDP has several state and Commonwealth data custodians contributing information spanning health, education, welfare and social services, including child protection, and we continue to add to this with data sources such as drug and alcohol services, the Medicare Benefits Schedule and the Pharmaceutical Benefits Scheme. It is also the first research platform to link Commonwealth Centrelink data with state data from South Australia. In addition to routine administrative data, we link data from special collections, such as through hospitals that contribute to the South Australian Trauma Registry, and for specific purposes, such as our work collaborating with the South Australian Child Death and Serious Injury Review Committee. We also link researcher-driven cohort studies and randomised controlled trials into the SA ECDP to enhance bespoke data collections with administrative data and to facilitate future research by enabling long-term follow-up for some outcomes. The data linkage and de-identification process is conducted by SA-NT DataLink and the AIHW for some Commonwealth data.

Our goal is to improve service delivery across health, education and human services to support healthy child development for all children, and for disadvantaged children in particular. The ‘joining up’ of these data across government agencies has offered new opportunities for examining a broad range of child health and development outcomes. Using the SA ECDP to work towards this goal has only been possible with the support of government partners who have shared our vision for providing better evidence than has previously been available to inform policy, program and practice decisions.

The SA ECDP has been a platform for a number of research and academic partnerships. This has included work with South Australian Government organisations and services—Department of the Premier and Cabinet, Department for Health and Wellbeing, Department of Treasury and Finance, Department for Education, Department for Child Protection, Department of Human Services,
Box 8.1 (continued): What is the South Australian Early Childhood Data Project?

the Child and Family Health Service, the Women’s and Children’s Health Network, and the Council for the Care of Children—as well as the Wardliparingga Aboriginal Research Unit and the Aboriginal Health Council of South Australia. Most recently, we have started to work with a range of community-based organisations to help them understand factors relevant to local community profiles of child wellbeing and development. The SA ECDP has proven to be a public good research resource with trans-disciplinary and inter-sectoral research partners in academia, government, non-government and community sectors.

Figure 8.1: Data sources held in the South Australian Early Childhood Data Project (SA ECDP)
Case study 1: a public health approach to child maltreatment

The 2016 release of the South Australian Nyland Royal Commission (Child Protection Systems Royal Commission 2016) into child protection services provided a context for a better approach to understanding the problem of child maltreatment. We have partnered with the Early Intervention Research Directorate and the South Australian departments of Child Protection, Premier and Cabinet, Health, Education, and Human Services to provide advice and data analytics on multiple questions concerning many aspects of child protection. Research using the SA ECDP has been instrumental in building cross-government consensus and buy-in that child protection is everybody’s business.

Until recently, administrative child protection data have been closely guarded and rarely available for systematic research, let alone linked with other government administrative data. The AIHW reported that in 2016–17, 233,795 Australian children were notified to child protection services (‘screened-in’ notifications), translating to approximately 1 in 25 children aged under 18 being notified in 1 year (AIHW 2019). This represents an increase of 27% from 2012–13. However, due to national reporting practices, the AIHW has been unable to investigate the longitudinal child protection experience for children in Australia. Individual unit record data about child protection have only been made available by jurisdictions for national collation since 2012–13. Prior to this, only aggregate data were provided to the AIHW. The unit record collection since 2012–13 has not been consistently provided by all jurisdictions, which constrains the ability to explore longitudinal child protection contacts nationally.

In South Australia, linked child protection data were used to investigate the basic epidemiology of child protection as the first step in a public health approach. The most basic epidemiological questions are around estimating incidence and prevalence by age. In other words, ‘How many children touch the child protection system over their life course?’ was the first question of interest. The process of linking data at the individual level turns child protection ‘incidents’ (contacts with the system) into child protection experiences of individuals over time (in epidemiology, that is called ‘incidence’). An incident-based system may struggle to tell the difference between 10 contacts from 10 individuals versus 10 contacts from the same individual. Using linked child protection, births and perinatal statistics data, the child protection experience of children born from 1999 to 2005, from age 0 to 10, was investigated. See Glossary for terms used in child protection in South Australia.
This research demonstrated that 1 in 4 (25%) children were notified to child protection, 1 in 20 (5%) were substantiated and 1 in 50 (2%) experienced some form of out-of-home care (OOHC) at least once by age 10 (see Figure 8.2). To put this into a health context, the cumulative incidence of contact with the child protection system is about 2.5 times that of asthma with the health system, the most common chronic health condition experienced by Australian children (AIHW 2017). The sheer scale of the contact with child protection at young ages strengthens the case that child protection is best seen as a public health issue that requires both effective treatments for those affected, and effective primary and secondary prevention. These patterns of frequent contact with child protection are not uncommon. Other Australian jurisdictions and some overseas countries show similar patterns, although direct comparisons are difficult due to differences in legislation, reporting practices and how reports are coded and processed (O’Donnell et al. 2016; Protecting Victoria’s Vulnerable Children Inquiry 2012; Putnam-Hornstein & Needell 2011; Queensland Child Protection Commission of Inquiry 2013; Rouland & Vaithianathan 2018; Zhou 2010). Nevertheless, what is clear is that the scale of the problem of child maltreatment has been vastly underestimated.

**Figure 8.2: Child protection system contact by age 10 for children born in South Australia between 1999 and 2005**
Another question of interest was ‘What is the developmental profile of these children who have contact with child protection?’ Using linked child protection and Australian Early Development Census data, the development at age 5 among children according to type of contact with the child protection system was investigated (Pilkington et al. 2017). Figure 8.3 shows that as the level of contact with the child protection system increases, so does the prevalence of developmental vulnerability on 1 or more domains at age 5. Children who have experienced OOHC are almost 3 times more likely to be vulnerable than children with no child protection contact. It is important to note that these results also show that even children who have only ever been notified (never screened in), and never had any more serious child protection contact, are nearly twice as likely to be developmentally vulnerable at age 5 (approximately 36% developmental vulnerability among children notified compared with 17.7% among children with no contact) (Figure 8.3). This level of increased developmental risk is similar to the differences between the most and least socioeconomically disadvantaged.

**Figure 8.3: Proportion of children vulnerable on 1 or more domains of the Australian Early Development Census at age 5 for children born in South Australia between 1999 and 2005, by level of contact with the child protection system**

Contact with child protection system

- No contact with child protection services
- Contact, not screened in
- Screened-in contact, no investigation
- Investigation, no substantiation
- Substantiation, no out-of-home care
- Out-of-home care
- South Australian average

*Note: Each category refers to 1 or more contacts with the child protection system at that level.*
The results of these analyses, which link levels of child protection contact to developmental vulnerability at age 5, are in stark contrast to anecdotal evidence that many initial notifications are ‘not real’ and that the ‘1 in 4’ is an overestimate. While, undoubtedly, notifications are made without enough information to enable further child protection investigation, these data show that, on average, notifications determined not to be ‘child protection matters’ are an indicator of higher risk for poor child development. With national acknowledgment that ‘protecting children is everyone’s business’ (COAG 2009), this also reinforces the notion that child protection requires a whole-of-government coordinated response to address the spectrum of child protection–related concerns and ensure children have the best start in life. These patterns of developmental vulnerability are at age 5—the year these children enter formal schooling.

This research has been the subject of widespread media and community engagement in South Australia (Novak 2019). It has been the basis for government-led community consultations, and over 40 presentations to government, non-government and community groups. The social and public health benefit of such widespread public conversations is developed through encouraging consideration of the role of both government and the community in preventing child maltreatment.

Case study 2: describing priority populations with high prevention potential

There has been a longstanding policy interest in young parents and young mothers (defined as mothers aged under 20) for many reasons. In Australia, this is partly related to the significant policy and program focus in the United Kingdom and the United States on reducing teen pregnancy rates (Hadley et al. 2016; Lawlor & Shaw 2002). However, there is growing acceptance that young maternal age in itself does not cause poor health outcomes for infants. Rather, it is the confluence of personal, social and economic disadvantages that are more likely to co-occur with young maternal age that increases risk of poor outcomes (Chittleborough et al. 2011; Lawlor & Shaw 2002). The proportion of births to young mothers in Australia is lower than ever before at under 3% (AIHW 2018), so at first glance, it seems unlikely young mothers contribute substantially to children coming in contact with the child protection system. Understanding both the historical policy interest and the historically low rates of births to young mothers, the South Australian Government wanted to investigate local and current evidence for the association between maternal age and child protection risk using the SA ECDP.
Linked child protection, perinatal and births registration data were used for children born in 1999 to 2013, and followed until the end of 2015, where the mother’s first child was born in South Australia (n = 116,051 mothers; n = 208,903 children). We also followed a subset of these mothers over the same period who had at least 1 child placed in OOHC (n = 1,183 mothers; n = 2,053 children).

In Figure 8.4, the ‘young mothers’ circle focuses only on mothers aged under 20 at their first birth (n = 10,364) and shows only 6% of young mothers had children who were placed in OOHC. However, of all the children who were in OOHC, 58% were born to a mother aged under 20 at the birth of her first child (‘children in out-of-home care’ circle).

In other words, the vast majority of young mothers do not have children placed in OOHC, but of the children who experience OOHC, over half were born to a mother who was young when she had her first child. It should also be noted that 70% of mothers aged under 20 at their first birth had partners aged under 25, so there should be a focus on young parents, not just young mothers.
This demonstrates that a small proportion of young parents are experiencing circumstances that indicate a need for intensive support to help prevent their children being placed into OOHC. It is important to understand this is not about how old parents are, but reflects broader personal, social and economic life circumstances faced by some young parents. Young parents regularly appear in the antenatal and postnatal health system, and assuming they can be engaged in effective interventions, the potential to prevent children being placed in OOHC is high. This research is currently feeding into a whole-of-government strategy on child protection secondary prevention.

Case study 3: redesigning a model of care

The South Australian Child and Family Health Service (CaFHS) is a backbone agency within the early childhood system that delivers state-wide universal and targeted services with the aim of improving health, development and wellbeing outcomes for South Australian children (CaFHS 2018). Over the past 5 years, the collaboration with CaFHS has evolved from using the SA ECDP to inform a service redesign, to working towards embedding evaluation of innovations in models of care into service delivery, and improving the capture and retrieval of key information on service delivery and outcomes.

The example presented here focuses on how linked perinatal, births registration, housing, CaFHS and child protection data were used to understand different levels of adversity and vulnerability experienced by infants in South Australia (Pilkington & Lynch 2017). This was in the context of the final report of the South Australian Child Protection Systems Royal Commission (2016) pushing for maternal and child health and education agencies to have a greater preventative role in a broader child protection system.

Acknowledging there is no standard definition of what makes a child ‘vulnerable’ to experiencing poorer outcomes, a combination of socioeconomic, trauma, psychosocial and health-related risk factors were used to estimate levels of risk experienced in each birth cohort born in South Australia. Figure 8.5 demonstrates the distribution of risk factors in the whole population of births in South Australia with an estimate of the average proportion of births each year experiencing different levels of risk. Of the estimated 20,000 births per year, approximately 70% will experience none or 1 risk factor and are likely to require universal services, while 30% will experience 2 or more risk factors, indicating a potential need for more intensive support. Among Aboriginal and Torres Strait Islander communities, these proportions are almost reversed due to the historical forces creating multiple forms of discrimination and adversity that create higher levels of vulnerability (see CaFHS 2018 for more detail).
This research directly informed the development of the CaFHS’ new model of care and, through small-area-based adversity profiling, is also informing resource allocation from lower to higher areas of need based on the absolute number of expected births at different adversity levels. The CaFHS example demonstrates how data linkage across otherwise siloed services can support service design and delivery, by using population-level evidence of the need for supportive, intensive and targeted services.

What are the implications for improving use of linked public data?

Researchers need a new model of partnership with service agencies

Over the past decade, the experience of building the SA ECDP, and partnering with the aim of achieving public good, have shown that the need for public good also speaks to the need to consider how academics work with government and non-government stakeholders. It is clear that knowledge transfer is not a linear, predictable process, where researchers develop ideas, then compile and analyse data which generate new insights that are transferred into policy and practice change with end-user benefit. Developing truly collaborative partnerships with stakeholders entails a substantial investment of time, patience, energy and, of course, buy-in from the relevant stakeholders.
As many jurisdictions develop their internal capacity to link their own data, building linked data resources is no longer a sufficient reason for government to partner with academics. It is now incumbent on researchers to demonstrate value beyond the capacity already available within government. They need to be actively engaged with stakeholders and share commitment to delivering research that actually improves service delivery. For some, this may require a big shift from the way they have worked in the past. The traditional model of academic-government partnerships, where knowledge generation and research translation take over 3 years through some form of stakeholder partnership or linkage grant, is often not fit for purpose in a policy climate of data-driven reform. Instead, partnerships with various parts of government, such as those illustrated in this article, require academics to have the capacity and willingness to respond rapidly to government priorities.

Investing in collaborative partnerships also has significant implications for producing traditional research outputs, raising the question of how universities support these activities as an appropriate role for academics. The conflict between investing in external partnerships and the need for traditional academic outputs poses a challenge for developing a new way of researchers working with government. This is especially the case for early- and mid-career researchers for whom the emphasis remains firmly on building traditional academic profiles. Progress can only be made if universities and funding bodies move beyond the rhetoric of research translation to fundamental reform that may include changes to the way universities are funded to conduct their research. There are encouraging signs with the Australian Research Council’s engagement and impact assessment framework (Australian Research Council 2018) which is driving research quality assessments beyond publication and grant metrics. However, this process does not currently influence funding as it does in the United Kingdom (Higher Education Funding Council for England et al. 2014).

There has been some success in knowledge transfer using the SA ECDP because a considerable amount of time has been invested upfront in developing relationships with key stakeholders. A track record of trust and adding value has been established. Successful research translation has included working through a series of deliberate stages that help maximise the value that can be added to the partnership. This involves collaboratively developing the research priorities with an understanding of what data (if any) are available to answer questions of interest. Some of the most difficult aspects relate to defining what the question is. Helping partners clearly articulate what it is they want to know can be a surprisingly challenging task. The challenges that follow include undertaking methodologically rigorous epidemiological analysis with attention to transparent numerators and denominators, and windows of risk. Next is to work through an iterative process with partners to develop a product that communicates the research in a way that empowers end users to understand its significance. In short, epidemiological analysis is used to tell stories with numbers so that non-expert users can interpret and understand the implications of the research undertaken and findings.
Building an intelligent information infrastructure

The child health and welfare field currently lacks a coordinated data infrastructure. The deployment of purposely designed system-wide data infrastructure—which captures system processes and activity, service delivery, therapeutic contact and dose, referrals and referral follow-up (that is, ‘warm handover’), and child- and family-centred outcomes—would greatly enhance the capability to understand the impact of government investments. There is no shortage of potential data sources, but how these are used and integrated to help solve problems is not always at the forefront. The goal should be to create an ‘intelligent information infrastructure’.

Figure 8.6 illustrates 3 key elements of an intelligent information infrastructure. Currently the SA ECDP holds a lot of administrative data on diverse service processes and activities, from the number of notifications received or the number of home visits to children attending preschool. It also has some high-quality data on outcomes, such as the Australian Early Development Census, child protection contact and the use of public housing. The biggest gap in the data platform concerns actual service delivery. To what services were people referred, did they attend, and what therapeutic dose of any support program did they receive? There are many reporting mechanisms that provide a snapshot of the current state of child health and development outcomes, but we are often left to ponder why outcomes got better or worse. What makes the elements of this data infrastructure intelligent is that they are joined up. Without linking those outcomes to service activity and delivery, we can only guess whether service innovation improved outcomes.

Figure 8.6: Elements of an intelligent information infrastructure

It is only by bringing all 3 elements together that an intelligent information infrastructure has the capability to inform service planning, design and routine evaluation of how service activity and delivery of therapeutic services affects outcomes.
Building an intelligent information infrastructure would enable better and more coordinated targeting of scarce resources with the capability to conduct routine evaluations using quasi-experimental methods (Lynch 2017). Bringing together administrative data that include the whole population allows both intervention and appropriate comparison groups to be identified in the data, which is key to using such methods. Additionally, with consent, this data infrastructure could provide the opportunity to follow participants of longitudinal cohort studies and pragmatic randomised controlled trials over long time periods. This would increase insights into ‘real-world’ outcomes not often available in the time frames supported by limited funding. Of course, all these benefits need to be based on appropriate processes to protect the privacy and security of individuals’ data. In our case, the SA ECDP uses only de-identified data, or when special data collections are added, the participants have given specific consent to have their data linked. In both cases, these processes are under strict ethics approvals, reporting and monitoring.

The opening up of data sources across Australia and the growing recognition of the value of linked data represent an opportunity to inform and evaluate innovative approaches to intractable social problems, such as child maltreatment, while preserving confidentiality and privacy. While creating renewable and intelligent data platforms is clearly desirable, it requires suitable funding arrangements. National funding structures are still largely locked into ‘one-off’ funding processes as discrete projects that are created and then dissolved. The challenge is to change this funding structure to foster sustainable, purpose-built linked data platforms around the country. Without a strategically designed and appropriately funded system-wide intelligent information infrastructure, there will be limited ability to measure the success of whole-of-system investment to improve health and welfare outcomes for families and children in Australia.

Further reading

For more information on the BetterStart Child Health and Development Research Group, see the BetterStart website at health.adelaide.edu.au/betterstart, which includes reports on Child Protection in South Australia and the SA ECDP, along with a short video www.youtube.com/watch?v=-s-9jmNIXlo, describing our research. A South Australian Government research report encompassing BetterStart’s partnership with the Early Intervention Research Directorate can be found on the South Australian Department of Human Services website at dhs.sa.gov.au/services/early-intervention-research-directorate.
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- Child and Family Health Service, SA Health
- Data and Reporting Services, Department for Health and Wellbeing
- Prevention and Population Health Branch, Department for Health and Wellbeing
- Women’s and Children’s Health Network, SA Health
- Early Intervention Research Directorate, Department of Human Services
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  - Department for Health and Wellbeing
  - Department for Education

- Australian Research Alliance for Children and Youth.

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References


Novak L 2019. Data shows 15 per cent of SA families—67,000—were reported to child protection authorities. The Advertiser (Adelaide). 14 March.


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Department of Human Services
Department of Social Services
National Disability Insurance Agency
National Indigenous Australians Agency
**Abbreviations**

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<tr>
<th>Acronym</th>
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<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
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<td>AIFS</td>
<td>Australian Institute of Family Studies</td>
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<td>AIHW</td>
<td>Australian Institute of Health and Welfare</td>
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<td>ALRC</td>
<td>Australian Law Reform Commission</td>
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<td>ATO</td>
<td>Australian Taxation Office</td>
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<td>CaFHS</td>
<td>Child and Family Health Service (South Australia)</td>
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<td>CALD</td>
<td>culturally and linguistically diverse</td>
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<td>CDEP</td>
<td>Community Development Employment Program</td>
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<td>COAG</td>
<td>Council of Australian Governments</td>
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<td>CSDA</td>
<td>Commonwealth/State Disability Agreement</td>
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<td>CSDA MDS</td>
<td>Commonwealth/State Disability Agreement Minimum Data Set</td>
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<td>CSTDA NMDS</td>
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<td>DOMINO</td>
<td>Data Over Multiple Individual Occurrences</td>
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<td>DSS</td>
<td>Department of Social Services (Australian Government)</td>
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<td>GDP</td>
<td>gross domestic product</td>
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<td>HILDA</td>
<td>Household, Income and Labour Dynamics in Australia (Survey)</td>
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<tr>
<td>ICF</td>
<td>International Classification of Functioning, Disability and Health</td>
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<td>IGE</td>
<td>intergenerational elasticity</td>
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<td>ISR</td>
<td>Income support reliance</td>
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<td>Longitudinal Study of Australian Children</td>
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<td>LSIC</td>
<td>Longitudinal Study of Indigenous Children</td>
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<td>Acronym</td>
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<td>MDS</td>
<td>minimum data set</td>
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<td>NARI</td>
<td>National Ageing Research Institute</td>
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<td>NCVER</td>
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<td>NHMRC</td>
<td>National Health and Medical Research Council</td>
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<td>NMDS</td>
<td>national minimum data set</td>
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<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<td>ordinary least squares</td>
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<td>out-of-home care</td>
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<td>PIA</td>
<td>Priority Investment Approach</td>
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<td>PSID</td>
<td>Panel Study of Income Dynamics</td>
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<td>RED</td>
<td>Research and Evaluation Database</td>
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<td>SA ECDP</td>
<td>South Australian Early Childhood Data Project</td>
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<tr>
<td>SDAC</td>
<td>Survey of Disability, Ageing and Carers</td>
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<td>Socio-Economic Indexes for Areas</td>
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<td>STrAtegies for RelaTives (study)</td>
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<tr>
<td>UNCRPD</td>
<td>United Nations Convention on the Rights of People with Disabilities</td>
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<td>UX</td>
<td>user experience</td>
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<td>WHO</td>
<td>World Health Organization</td>
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The terms in this glossary relate to articles in *Australia’s welfare 2019: data insights*.

**administrative data**: A term used to refer to data collected by governments or other organisations generated during the routine administration of program or service delivery, while not designed or originally intended for research, it can be a rich source of information.

**Age Pension**: Income support payment paid to older Australians who meet age and residency requirements, subject to income and asset tests.

**Age Pension age**: Age at which a person becomes eligible to receive the *Age Pension* (subject to income, asset and residency requirements). The age has changed over time and depends on a person’s date of birth. Between 1 July 2013 and 30 June 2017 the age pension age was 65 years. From 1 July 2017, the qualifying age increased to 65 years and 6 months, and will increase by 6 months every 2 years to reach 67 years by 1 July 2023.

**asset test**: Test to determine eligibility for government payments based on property or items an individual or their partner owns, or has an interest in.

**attenuation bias**: The underestimation of the magnitude of an estimated relationship between two variables due to errors in the independent variable. Adjusting for attenuation bias leads to an increase (in absolute terms) in the estimated magnitude of the relationship.

**Carer Payment**: A means tested income support payment for people providing constant care for a person with a physical, intellectual or psychiatric disability or severe medical condition, and due to their caring role are unable to support themselves through substantial paid employment.

**Centrelink**: Program of the Australian Government administered through the Department of Human Services, and a key component of Australia’s social security system. Centrelink delivers a range of government payments and services for retirees, the unemployed, families, carers, parents, people with disability, Aboriginal and Torres Strait Islander Australians, and people from diverse cultural and linguistic backgrounds.

**Disability Support Pension**: A means tested income support payment for people aged 16 and over but under age pension age (at claim) who have a reduced capacity to work because of impairment. This includes those who are permanently blind; unable to work for 15 hours or more per week for the next two years due to their disability or medical condition; unable, as a result of impairment, to undertake training that would equip them for work within the next 2 years.
earnings elasticities: The degree to which one individual's income affects another individual's income, measured from 0 to 1. For instance, father-son earning elasticity describes the effect a father's income has on his son's income. If the earning elasticity between a father and son is 0.3, then a 10% increase in the father's earnings is associated with a 3% increase in the son's earnings, all other things being equal.

economic rent: An economic rent is any payment to an owner or a factor of production (e.g. workers) in excess of the costs needed to bring that factor into production. It is an amount of money earned which exceeds that which is socially or economically necessary.

Family Tax Benefit: Income-tested government benefits to assist with the everyday costs of raising children. Has two parts: Family Tax Benefit Part A is a per child payment; Family Tax Benefit Part B is a per family payment, available to single parents and families with 1 main income.

impairment table: The impairment tables—which are part of social security law for DSP—are used by the Department of Human Services to assess how a person’s impairment affects their ability to work. The tables are used to assess conditions that are fully diagnosed, treated and stabilised; assess the effect of such conditions on a person's ability to work and; assign impairment ratings. These ratings are used to determine eligibility for payments. More information on impairment tables can be found on DSS website https://www.dss.gov.au/our-responsibilities/disability-and-carers/benefits-payments/disability-support-pension-dsp-better-and-fairer-assessments/review-of-the-tables-for-the-assessment-of-work-related-impairment-for-disability-support-pension/social-security-tables-for-the.

income support payments: Sub-category of benefits paid by the Australian Government expected to serve as a recipient’s primary source of income. Are regular payments that assist with daily costs of living.

income test: Test to determine an individual’s eligibility for the full or part-rate of a government payment, based on their earnings from work, investments and/or substantial assets.

informal carer: Person who provides unpaid assistance or supervision to someone—usually family and friends—who needs help because of disability, physical or mental health condition, end-of-life health condition or old age. The Australian Bureau of Statistics definition of informal care also specifies that this assistance must be ongoing, or likely to be ongoing, for at least 6 months.

intergenerational persistence of economic advantage: The tendency of economic status to be maintained from parents to their children. Intergenerational persistence can be understood by estimating the intergenerational earning elasticity of a society (see earnings elasticities).
investigation: A determination of whether an incident of child abuse or neglect has occurred, and the circumstances of its occurrence.

life expectancy: Indication of how long a person can expect to live, depending on the age they have reached. Technically, the average number of years of life remaining to a person at a particular age if age-specific death rates do not change. The most commonly used measure is life expectancy at birth.

means tested: Government payment is means tested when eligibility for full or part payment is determined by assessing an individual’s income and assets.

Newstart Allowance: An income support payment to help people 22 years and older who are looking for work or participating in approved activities that may increase their chances of finding a job.

notification: A report to the relevant child protection agency concerning suspected child abuse or neglect.

occupational aggregation (two-, three- or four- digit): Categorising occupations into broader groups to be used in analysis. In Chapter 2, occupational aggregation has been done based on the 2006 Australian and New Zealand Standard Classification of Occupations, which is structured into five hierarchical levels. Two-digit aggregation is categorised to the sub-major level, which comprises of 43 categories of occupations; three-digit to minor groups, comprising of 97 categories of occupation; and four-digit to occupational units, comprising of 358 categories of occupation.

out-of-home care: System of caring for a child who is removed from their family of origin; includes (but is not limited to) home-based care, emergency care and residential care.

parenting payments: A means-tested income support payment for principal carers in recognition of their reduced capacity to support themselves while caring for young children. Parenting Payment Single is available for single parents until their youngest child turns 8 years. Parenting Payment Partnered is available for partnered parents until their youngest child turns 6 years.

Parenting Payment Single: A means tested income support payment for single parents/guardians to help with the cost of raising children. Single parents can stay on the payment until the youngest child turns 8. Single parents must satisfy part-time mutual obligation requirements of 30 hours per fortnight once their youngest child turns 6 (unless exempt).
Parenting Payment Partnered: A means tested income support payment for partnered parents/guardians to help with the cost of raising children. Partnered parents can stay on the payment until the youngest child turns 6.

part-rate payment: Government payment received by an individual that is not the full amount that may be received for that particular benefit type. Whether an individual is eligible for full or part payment is often determined based on whether the income they earn is below or above a certain threshold.

persistent rents: See economic rent.

qualifying age: Age at which a person is eligible for particular government benefits.

screened in notification: A term used to indicate whether the situation described by the caller (notifier) is of sufficient concern to warrant intervention by the relevant child protection agency. Those that meet the threshold are screened in; those that do not are screened out.

social security system and payments: Aims to encourage self-reliance and provide for a minimum acceptable standard of living, with payments targeted to people who do not have the means to support themselves. Provides payments, through Centrelink, to those unable to work or unable to find work, with additional payments for those who pay private rent and those with dependent children.

substantiation: A professional judgement as to whether abuse or neglect has occurred.

unemployment payments: Benefits or payments available to working age people looking for work, including Youth Allowance (Other) and Newstart Allowance.

Youth Allowance (Other): A means tested payment for young people aged 16-21, looking for full-time work or undertaking approved activities.
Australia’s welfare 2019: data insights presents an overview of the welfare data landscape and explores selected welfare topics—including intergenerational disadvantage, income support, future of work, disability services, elder abuse and child wellbeing—in 8 original articles.

Australia’s welfare 2019 is the 14th biennial welfare report of the Australian Institute of Health and Welfare. This edition introduces a new format and expanded product suite:

- Australia’s welfare 2019: data insights
- Australia’s welfare snapshots
- Australia’s welfare 2019: in brief
- Australia’s welfare indicators