



OECD COUNCIL RECOMMENDATION ON GOOD STATISTICAL PRACTICE

Australian Statistical System Self-Assessment
August 2018



To the Statistics and Data Directorate
Organisation of Economic Cooperation and Development (OECD)

OECD Council Recommendation on Good Statistical Practice: Australian self-assessment

Please find attached the Australian self-assessment against the OECD Council Recommendation on Good Statistical Practice. This has been a valuable exercise to assess the performance of the Australian statistical system against the recommendations and good practice guidelines.

The Australian statistical system

Australia's national statistical system is complex and comprised of many entities. The Australian Bureau of Statistics (ABS) is Australia's national statistical office and is the major provider of official statistics in Australia. Australia has national statistical authorities that also produce official statistics, such as the Australian Institute of Health and Welfare and the Australian Bureau of Agricultural and Resource Economics and Sciences. State and territory government agencies play an important role in providing official statistics through provision of source data to the ABS and others. Additionally, there are Australian government (federal) agencies that produce official statistics, but this is not their primary function. Examples include the Bureau of Meteorology, the Australian Taxation Office and the Department of Industry, Innovation and Science.

The scope of this review of the Australian statistical system is largely restricted to the ABS as Australia's national statistical office. Where relevant, the national statistical authorities have been considered, in particular, the Australian Institute of Health and Welfare which has a legislated role to provide statistical information and analysis on the health and welfare of Australians. To a lesser extent, other official statistical producers and sources have also been considered where applicable.

The Australian national statistical system is complemented by, and often draws from, the broader Australian data system. This includes administrative, transactional and sensor data from both public and private sources. This rapidly changing data landscape presents new challenges and opportunities for national statistical offices and governments to unlock new insights by using emerging data assets in a responsive, safe and protected way. This broader Australian data system is addressed in the Australian review only where relevant.

The Australian Bureau of Statistics

The ABS has a long history and a unique position as Australia's official national statistical office. For over 100 years, the ABS has provided official statistics to inform decisions on issues of importance to Australia and is trusted by the community to do so. The ABS provides key statistics on a wide range of economic, environmental, population and social issues. The ABS plays an important role in relation to the statistical activities of other official bodies, both within Australia and internationally, as a provider of data and services.

The ABS's purpose is to inform Australia's important decisions by partnering and innovating to deliver relevant, trusted, objective data, statistics and insights. The ABS is working to achieve greater use of our statistical information, contributing to informed decision making by governments, business, households, and the community, while protecting the confidentiality of the sensitive information provided to us by households and businesses. As the national statistical office for Australia, the ABS collaborates and partners across Australia's statistical system to deliver the most public value we can from the resources we receive.

To achieve our purpose, the ABS is focusing on three priorities to meet Australia's contemporary and emerging statistical needs over the coming years:

1. providing high quality official statistics
2. transforming the ABS for the future
3. delivering new statistical solutions to maximise the value of public data.

Our highest priority is to deliver high quality official statistics. To ensure that we can deliver relevant, trusted, objective statistics, we are transforming the ABS and partnering with our stakeholders to innovate, develop and implement new statistical solutions.

The ABS is an enthusiastic and key member of the national and international statistical community, contributing to domestic and international forums and sharing knowledge and expertise with other national statistics offices, Australian statistics authorities and other official statistical producers. The ABS strives to be a respected leader in the national and international statistical communities, producing statistics of integrity, and enhancing the coordination of, and investment in, the national statistical system. The ABS ensures that Australia contributes to internationally comparable statistics and international statistical standards.

I look forward to engaging with you further regarding the OECD Council Recommendation on Good Statistical Practice to ensure quality statistics through the international community.

Yours sincerely



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31 August 2018



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RECOMMENDATION 1

Put in place a clear legal and institutional framework for official statistics which should in particular provide:

- i. details as to the organisation of the NSS, the legal status and role of the NSO, as well as the legal status, functions, relationship, rights and responsibilities of other institutions within the NSS;**
- ii. a clear mandate for institutions of the NSS to collect data for statistical purposes.**

The Australian Bureau of Statistics (ABS) operates under a legal framework designed to support its role as a provider of high quality and trusted official statistics. The ABS legislative framework is consistent with the United Nations Fundamental Principles of Official Statistics and protects the professional integrity of the Australian Statistician. The ABS legislative framework also places an obligation on Australian residents to provide data required for statistics. It also obliges the ABS to use that information only for statistical purposes and in doing so, prevents disclosure of the identity of any individual person or business providing data. The ABS's functions and responsibilities are legislated by the [Australian Bureau of Statistics Act 1975](#) and the [Census and Statistics Act 1905](#). All Australian statistical legislation, determinations and regulations are freely available to the general public.

Australian Bureau of Statistics Act 1975

The [Australian Bureau of Statistics Act 1975](#) (ABS Act) establishes the ABS as an independent statutory authority, defines the functions of the ABS, establishes the office of the Australian Statistician and describes the terms under which the Australian Statistician can be appointed to, and removed from, office. The ABS Act also provides for the appointment of the staff to the ABS and establishes the [Australian Statistics Advisory Council](#).

Section 6(1) of the ABS Act describes the six functions of the ABS as being to:

- constitute the central statistical authority for the Australian Government and provide services for the state and territory governments;
- collect, compile, analyse and disseminate statistics and related information;
- ensure coordination of the operations of official bodies in the collection, compilation and dissemination of statistics and related information;
- develop standards for statistics and ensure compliance;
- give advice and assistance to official bodies in relation to statistics; and
- provide liaison between Australia, other countries and international organisations on statistical issues.

Section 5(4) of the ABS Act provides for the Australian Statistician to control the operations of the ABS.



In practice, the Australian Statistician and the ABS operate independently and objectively in the performance of day-to-day operations. The ABS recognises the importance of supporting informed decision making of Australian Governments, and does this whilst maintaining its reputation as a world-class statistical agency and the trust of the public. The ABS is transparent and accountable in relation to its role as the central statistical authority for Australian governments, including through the publication of the corporate plan, forward work program and annual report. The independence and transparency of the ABS are supported and enabled by legislation.

The Census and Statistics Act 1905

The [Census and Statistics Act 1905](#) (CSA):

- requires the Australian Statistician to conduct the Census of Population and Housing every five years;
- requires the Australian Statistician to publish a quarterly population estimate for each Australian state and territory;
- empowers the Australian Statistician to collect statistical information on a broad range of demographic, economic, environmental and social topics;
- enables the Australian Statistician to legally direct a person to provide statistical information, and provides penalties for non-compliance with such a direction;
- requires the ABS to publish the results of all statistical collections;
- contains secrecy provisions that ensures any information relating to a person will not be released in a manner that is likely to enable the identification of that person, unless it is permitted by law; and
- places a life-long obligation on all ABS officers to maintain the secrecy of information collected under the CSA, and provides harsh penalties for those who fail to do so.

Section 13 of the CSA provides for the Minister to make determinations allowing for the disclosure, with the approval in writing of the Australian Statistician, of information included in a specified class of information furnished in pursuance of the CSA. The [Statistics Determination 1983](#) (the Determination) is such a determination which authorises the release of a restricted range of information under certain circumstances. The Determination is due to sunset on 1 October, 2018 and a new determination will be in force before that date. The Determination will provide a more flexible scheme under which business information can be released in sufficient detail to meet the analysis and decision making needs of governments, businesses and other stakeholders, whilst managing business expectations around the confidentiality of their commercial information.

Section 19 of the CSA contains strong secrecy provisions which ensure information collected under the CSA is only disclosed where explicitly enabled by the CSA. All ABS officers are bound for life to maintain the secrecy of information collected under the CSA, and sign an undertaking of fidelity and secrecy upon commencement and at regular intervals throughout their employment. The CSA provides for harsh personal penalties should secrecy not be maintained.

The CSA also provides for Regulations to be made to assist the Australian Statistician in performing their functions. These are contained within the [Census and Statistics Regulation 2016](#).



Other legislation in the Australian statistical system

Other Australian national statistics authorities, such as the Australian Institute of Health and Welfare (AIHW) and Australian Bureau of Agricultural and Resource Economics and Sciences, also have enabling legislation and maintain professional independence from Government. For example, the [Australian Institute of Health and Welfare Act 1987](#) establishes the AIHW and outlines its functions.

The primary functions of the AIHW are to:

- to collect, produce, coordinate health and welfare related information and statistics;
- to develop statistical standards and classifications relevant to health and welfare services; and
- to conduct research into the health and welfare of Australian people and Australia's health and welfare systems.

Australia's privacy legislation introduces requirements for transparency regarding how an agency collects, handles and secures personal information, but does not otherwise restrict an agency from conducting its statistical operations.

New Australian federal data sharing and release arrangements are, at the time of this assessment, being considered and will benefit Australians by streamlining the way public data is shared with and released to trusted users. New arrangements will provide efficient, scalable and risk-based trusted data access to datasets that have substantial and community-wide benefits for research, innovation and policy. The new arrangements will increase the authorised sharing and release of data and improve data safeguards to ensure risks are managed consistently and appropriately. Some Australian states already have data sharing legislation in place.

Key aspects of the proposed Australian government arrangements include:

- establishing a National Data Commissioner to implement and oversee a simpler, more efficient data sharing and release framework;
- established a National Data Advisory Council to advise the Commissioner on ethical data use, community expectations, technical best practice, and industry and international data developments;
- introducing legislation to enable greater sharing, use and reuse of public sector data while maintaining the strong security and privacy protections the community expects. Note that this legislation will not require data sharing, only enable it. Therefore the ABS and other stakeholders in Australia's national statistical system will still be able to work within the powers and constraints of their relevant pieces of legislation;
- creating transparency measures to provide the public with reassurance as to what data is being shared and for what purposes; and
- introducing a consumer data right, allowing consumers to share their transaction, usage and product data with service competitors and comparison services.

These arrangements will complement the existing statistical legislative framework.



Summary of assessment

	Item	Assessment
Recommendation	<p>Recommendation 1: Put in place a clear legal and institutional framework for official statistics which should in particular provide:</p> <ul style="list-style-type: none"> i. details as to the organisation of the NSS, the legal status and role of the NSO, as well as the legal status, functions, relationship, rights and responsibilities of other institutions within the NSS; ii. a clear mandate for institutions of the NSS to collect data for statistical purposes. 	Fully compliant.
Good Practice	<p>1.1. Existence of a comprehensive and coherent statistical legislation periodically revised and amended. The statistical legislation defines the nature of official statistics; the legal framework for the compilation, production and dissemination of official statistics; the legal status, role in the system, functions, relationship, rights and responsibilities of institutions within the NSS; the mandate for data collection; the coverage of statistical activities; and the role, functions and composition of the Statistical Council. The statistical legislation also regulates the organisation of the NSS; the independence of the NSO and its head; the relationship between the producers of statistics and respondents; the access to administrative records and their use for statistical purposes; the dissemination policy; the legal infrastructure for ensuring the confidentiality and the penalties in case of breach of confidentiality; budget issues; the availability of sufficient resources for financing statistical programmes, the international statistical co-operation, and the co-ordination of statistical activities within the country's statistical system.</p>	Fully compliant. While the CSA and ABS Acts are not regularly reviewed, the Determination and Census and Statistics Regulation are both reviewed periodically.
	<p>1.2. Laws and regulations governing the collection, compilation and production of official statistics are consistent with the UN Fundamental Principles of Official Statistics.</p>	Fully compliant.
	<p>1.3. Statistical authorities have a clear mandate for data collection and the authority to compel respondents to comply with data requests (e.g. the Population and Housing Census, Agricultural Census, surveys, administrative sources, etc.). In the case of Population and Housing Census, obligation for citizens to participate and to respond to the questionnaires is legally binding and established by law.</p>	Fully compliant.
	<p>1.4. Statistical Authorities are required by law to conduct a Census of Population and Housing and a Census of Agriculture at least every ten years.</p>	Fully compliant.
	<p>1.5. Statistical laws and regulations are publicly available.</p>	Fully compliant.



RECOMMENDATION 2

Ensure professional independence of National Statistical Authorities.

To this end, Adherents should ensure that the National Statistical Authorities:

- i. are professionally independent from other policy, regulatory or administrative departments and bodies, as well as from private sector operators, considering that professional independence of the producers of official statistics is essential for the production and the dissemination of objective statistics;
- ii. have the exclusive authority, as part of their professional independence, to decide on statistical methods and dissemination;
- iii. are protected, through the inclusion of explicit provisions in statistics legislation, from political and other interference in developing, compiling and disseminating official statistics.

The Independence of the Australian Statistician

The Australian statistical system is well served by legislation which enshrines the independence of official statistics producers. Australia's national statistical office, the Australian Bureau of Statistics (ABS) is headed by the Australian Statistician. The Australian Statistician is a statutory office established in the [Australian Bureau of Statistics Act 1975](#) (ABS Act) and is considered a peer to the heads of other Australian Government departments and entities.

The Australian Statistician is accountable to the Australian Parliament through the treasury portfolio. Similarly, the governing board of Australian Institute of Health and Welfare (AIHW) is accountable to the Australian Parliament through the health portfolio.

The ABS Act contains specific provisions for the appointment, conditions and dismissal of the Australian Statistician. The Australian Statistician is appointed by the Australian Governor-General for a period not exceeding seven years and may be reappointed. The Australian Statistician is bound by the ABS Act not to undertake any other work, without ministerial approval, during their tenure. Section 12 of the ABS Act outlines the specific circumstances in which the Australian Statistician may be removed from office. These relate to incapacity to undertake the role or misbehaviour, not to quality or content of work of the ABS. In almost all cases, both Houses of Parliament must agree to the dismissal. Other conditions, such as remuneration, leave of absence, resignation and acting appointments are outlined in sections 9, 10, 11 and 15 of the ABS Act.

The Independence of the Australian Bureau of Statistics

The ABS Act requires that the Australian Statistician controls the functions of the ABS. This includes the collection, compilation, analysis and dissemination of statistics, and all methods, standards, and procedures used in these processes. The [Census and Statistics Act 1905](#) (CSA) enables the Australian



Statistician to collect statistical information in relation to the matters prescribed in the Census and Statistics Regulation 2016.

Section 9(1) b of the CSA enables the Minister responsible for the portfolio in which the ABS resides to direct the Australian Statistician to collect statistics on a particular topic. However, Section 5(4) of the ABS Act requires that the collection, methods, procedures, compilation and dissemination of these statistics is at the sole discretion of the Australian Statistician. The recent [Australian Marriage Law Postal Survey](#) is an example of where the ABS's responsible Minister directed the Australian Statistician to collect statistics on whether the law should be changed to allow same sex couples to marry. The Australian Statistician undertook and decided the means of the collection, processing and dissemination of these statistics.

The ABS is required under the CSA to compile and analyse data that is collected and publish the results of such analysis or compilation. This helps to ensure the independence and political neutrality of Australia's official statistics.

The ABS releases statistics and publications on the ABS website under the ABS banner and using ABS specific branding. Other Australian national statistics authorities, including the AIHW and the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES), take a similar approach. This approach ensures that Australian official statistics can be easily and visually identified.

Occasionally, the ABS releases data jointly with reputable partners that are highly regarded or trusted within the Australian or international communities and add more value to the intended product than could be produced independently by the ABS. ABS policy requires that the integrity, independence and reputation of the ABS brand must be paramount in deciding to undertake a joint release.

The ABS publishes the [ABS Forward Work Program](#) annually. This document outlines the statistical work program for the financial year, strategic priorities, major changes and risk management approach. The ABS, through the [ABS website](#), provides advice regarding the expected releases over the next six months and a daily release advice. Other national statistical authorities, including the AIHW, also provide advice regarding [upcoming statistical releases](#). For more information, see recommendation 9.

The ABS provides statistical leadership in the Australian community to help ensure official statistics are used and cited appropriately. For example, the ABS harnesses opportunities to engage productively with the media, including writing op-eds, having a social media presence and working with media to ensure accurate reporting of statistics. The ABS's proactive approach to communication and engagement with governments, stakeholders, users, and the media helps to ensure that trusted official statistics are used widely and appropriately in decision making.

Australian Statistics Advisory Council

The ABS Act establishes the [Australian Statistics Advisory Council](#) (ASAC). The ASAC is the key advisory body to the Minister responsible for the ABS and the Australian Statistician on statistical services. This includes addressing the priority of maintaining and enhancing the quality of official statistics, as well as providing valuable input to the directions and priorities of the ABS work



program. The ASAC’s membership composition reflects a broad cross-section of perspectives covering government, business, academia, and community interests.

Under subsection 18(1) of the ABS Act, the ASAC is to advise the Minister and the Australian Statistician on:

- a. the improvement, extension and co-ordination of statistical services provided for public purposes in Australia;
- b. annual and longer term priorities and programs of work that should be adopted in relation to major aspects of the provision of those statistical services; and
- c. any other matters relating generally to those statistical services.

The ABS Act enables the Minister and/or the Australian Statistician to seek the advice of the ASAC. The ASAC works closely with the Australian Statistician, and the ASAC Chairperson meets periodically with the Minister to ensure advice and assistance is readily available.

The ASAC reports annually to the Parliament and through the [Australian Statistics Advisory Council Annual Report](#) which is available from the ABS website.

The Independence of the Australian Institute of Health and Welfare

As an independent statutory entity, AIHW is accountable to the Australian Parliament, and is governed by a Board comprising independent and government members. The Board is subject to the general oversight of the Minister for Health, who may direct the work of AIHW only following consultation with the states and territories, as set out in the [Australian Institute of Health and Welfare Act 1987](#).

The AIHW Director, under broad guidance from the Board, is responsible for the day-to-day management of AIHW to ensure delivery against its vision to provide stronger evidence (data and information) for better decisions and improved health and welfare.

Summary of assessment

	Item	Assessment
Recommendation	<p>Recommendation 2: Ensure professional independence of National Statistical Authorities. To this end, Adherents should ensure that the National Statistical Authorities:</p> <ul style="list-style-type: none"> i. are professionally independent from other policy, regulatory or administrative departments and bodies, as well as from private sector operators, considering that professional independence of the producers of official statistics is essential for the production and the dissemination of objective statistics; ii. have the exclusive authority, as part of their professional independence, to decide on statistical methods and dissemination; iii. are protected, through the inclusion of explicit provisions in statistics legislation, from political and other interference in developing, compiling and disseminating official statistics. 	Compliant.



Good Practice	2.1. The professional independence of the Statistical Authorities from other policy, regulatory or administrative departments and bodies, as well as from private sector operators in compiling and disseminating official statistics is explicitly guaranteed by law and ensured in practice by all entities of the NSS.	Substantially compliant. This is true for the ABS and the AIHW and most other national statistical system entities.
	2.2. The Head of the NSO, and where appropriate, the heads of other National Statistical Authorities, have responsibility for ensuring that statistics are developed, produced and disseminated in an independent manner. (ECoP)	Fully compliant.
	2.3. The Head of the NSO, and where appropriate, the Heads of other National Statistical Authorities, have the sole responsibility for deciding on statistical methods, standard and procedures, and on content and timing of statistical releases. (ECoP) This is explicitly provided by law.	Fully compliant.
	2.4. The Head of the NSO, and where appropriate, the Heads of other National Statistical Authorities, have sufficiently high hierarchical standing to ensure senior level access to policy authorities and administrative public bodies. They are of the highest professional calibre. (ECoP)	Fully compliant.
	2.5. The appointment of the Heads of the NSO and, where appropriate, the Heads of other National Statistical Authorities, is based on professional competence only. The reasons on the basis of which the incumbency can be terminated are specified in the legal framework. These cannot include reasons compromising professional or scientific independence. (ECoP)	Fully compliant.
	2.6. National legislation provides clear and detailed description of the procedure for appointment and dismissal of the Head of the NSO. A list of conditions under which the Head of the NSO can be dismissed is provided for by law.	Fully compliant.
	2.7. A clear reporting system for the Head of the NSO is provided for by law in order to ensure and reinforce its technical independence.	Fully compliant.
	2.8. The statistical work programmes are published and periodic reports describe progress made (ECoP).	Fully compliant.
	2.9. Statistical releases are clearly distinguished and issued separately from political/policy statements (ECoP).	Fully compliant.
	2.10. The NSO and where appropriate, other National Statistical Authorities, comment publicly on statistical issues, including criticisms and misuses of statistics as far as considered suitable (ECoP).	Fully compliant.



	<p>2.11. Data collection, data production and release of information are ensured without formal approval from third parties</p>	<p>Fully compliant. The ABS does not require any form of approval from third parties.</p>
	<p>2.12. A Statistical Council including external experts advises the Heads of the National Statistical Authorities on strategic statistical issues. The nature of the Statistical Council and the reporting arrangements to government are provided for by law.</p>	<p>Fully compliant.</p>



RECOMMENDATION 3

Ensure adequacy of human financial and technical resources available to the National Statistical Authorities for the production and dissemination of official statistics

- i. sufficient to allow National Statistical Authorities to meet their commitment to quality, and to meet professional standards thereby fulfilling their role as providers of reliable, relevant and accessible data for national and international use;**
- ii. adequate to produce a minimum core set of data, to be defined nationally or internationally, to monitor the economy, society and the environment.**

Prioritising production of official statistics

The majority of funding for official statistics in Australia is provided through annual government appropriation or through user funding of specific statistical collections. There is also an annual government budgeting process through which agencies may seek additional funding for specific initiatives or to respond to cost pressures. Governments must balance the extent to which statistical authorities are funded with other competing priorities. To deliver the best value while working within these resources, each statistical authority in the national statistical service must manage and prioritise statistical production.

In real terms, funding for the Australian Bureau of Statistics (ABS) has reduced substantially over a number of years. The ABS is working with government funding agencies and key users to retain a workable and stable financial situation, so that it can continue to deliver the official statistics Australia needs to the high levels of quality expected.

The adequacy of resources is regularly monitored by statistical authorities in order to effectively manage and prioritise the statistical work program and leverage regular government budget processes. The ABS Resource Prioritisation and Finance Committee and associated working group, for example, meet at least quarterly, or as frequently as weekly when required, to oversee and monitor allocations and expenditure to ensure rigour, discipline and transparency. The committee comprises senior staff including the ABS Chief Financial Officer.

There are a number of strategies that enable the production of official statistics within available resources. For example, the ABS has:

1. focused on achieving efficiencies by reducing corporate overheads, including reducing property costs through activity based working;
2. increased the use of administrative and transactional data collected by other entities in order to reduce direct costs to collect information from households and businesses; and
3. prioritised statistical activities, including ceasing some activities.



The ABS classifies its statistical work program in [four tiers](#), which are used to assist with prioritisation undertaken by the ABS. The tiers were informed by the development of the list of [Essential Statistical Assets](#) (ESA) for Australia. The ESA initiative highlights statistics which are critical to decision making in Australia. The initiative contributes to effective prioritisation of investment by governments to improve the overall quality of Australia's official statistical assets, enhance their utilisation and allow for more effective integration to increase the value of the national statistical system. The ESA was developed in consultation with the community as well as users and producers of statistics in Australia.

The AIHW has recently expanded its work program to meet increasing demand from users. Most new work is funded directly by users, but the AIHW has also received additional base funding from Government.

Consultation on the ABS statistical forward work program

The ABS regularly consults with stakeholders on the statistical forward work program. Consultations usually occur with the [Australian Statistics Advisory Council](#), the Economic Statistics Advisory Group, the Population and Social Statistics Advisory Group, relevant federal agencies and central agencies of the states and territories. The advisory groups are comprised of academics, private sector representatives, and other public service agencies.

The 2016-17 consultation confirmed that the ABS is focusing its funding from the Australian Government on priority economic, demography and household expenditure and income statistics, as well as on statistical infrastructure used to support the various programs. Significantly, some important statistical information, especially key social statistics, is only possible with the provision of significant user funding. This support allows the ABS to produce information on important areas of public interest and significant government investment.

There is also high demand for statistics in a number of other areas, such as time use and mental health, which are not able to be produced within existing ABS resources provided through Government appropriation. Stakeholders were advised that the ABS will need to cease, change or seek user funding for some statistics assessed as relatively lower priority. The Australian Statistics Advisory Council endorsed a general principle of user funding for lower priority statistics.

Recently funded initiatives

Technical resources are generally managed within the remit of each statistical authority in the Australian statistical system.

The ABS depends on its statistical infrastructure produce high-quality official statistics and to develop Australia's broader statistical system. The Australian Government recently invested \$257 million (AUD) over five years to modernise ABS infrastructure. This investment is known as the Statistical Business Transformation Program and will enhance the statistical processes and infrastructure used by the ABS to produce critical information about the Australian economy, society, population and environment.

The Statistical Business Transformation Program is responsible for designing and developing the next generation of statistical business processes and supporting information infrastructure. This will



provide a platform to reduce costs and burden on providers, bring together various datasets to develop new statistical products more rapidly and make data available in a form which can be more easily used.

The ABS Information and Communications Technology (ICT) Strategy 2014-15 to 2018-19 supports infrastructure transformation. It aligns with government directions in relation to whole-of-government shared services and enhanced use of digital technologies to deliver services to the community.

Similarly, the Australian Institute of Health and Welfare (AIHW) ICT Strategic Plan for 2017–2020 provides a roadmap to develop technical capability that supports high quality, effective, secure and timely data collection, analysis, sharing and reporting. This plan focuses heavily on: responding to strategic business needs and opportunities; improving service delivery and operational integration between business and ICT; and mitigating business risks associated with ICT capabilities that require improvement or need replacing.

In the 2017-18 Federal Budget, the Australian Government funded the [Data Integration Partnership for Australia](#) (DIPA). The DIPA initiative is an investment to maximise the use and value of the Government's data assets. Through data integration and analysis, the DIPA initiative creates new insights into important and complex policy questions. The DIPA initiative will:

- improve technical data infrastructure and data integration capabilities in the Australian Government;
- preserve the privacy of individuals and ensure the security of sensitive data;
- improve data assets in important areas such as health, education and social welfare; and
- maximise the use of these assets through data integration and analysis.

The ABS and the AIHW are key partners of the DIPA initiative. They are both accredited integrating authorities that are integrating data for, and receive funding through, the DIPA initiative.

Some of the ABS's important statistical information, especially some key social statistics, are only possible through significant user funding. This support allows the ABS to produce information on important areas of public interest and significant government investment. Over the past 20 years, the ABS has received an average annual appropriation of around \$290 million to deliver the regular annual statistical program, together with around \$36 million in user funding. User funding, on average, accounts for over 10 per cent of the ABS annual budget.

Human resources

The Australian Government has recognised the critical importance of developing capability for statistical purposes, outlined in the [Data Skills and Capability in the Australian Public Service](#) publication. This publication outlines a Data Skills and Capability Framework to improve overall data skills and capability across the Australian Public Service. The Learning Hub on the NSS website provided access to a range of statistical capability resources. The ABS publication [Statistical Skills for Official Statisticians](#) is a resource that provides guidance on the skills, knowledge, and expertise required for statistical production.



The ABS recognises that its people are essential to successfully realising its transformation goals and achieving its vision and objectives. The ABS has identified that in order to deliver its transformation agenda, it needs to change its culture, drive high performance and build capability.

To deliver on this, an ABS Strategic Workforce Plan is implemented through annual People and Culture Action Plans. Workforce strategies focus on: reshaping workforce capability; aligning staff profiles and structure to support a rationalised and responsive work program; building a high performance culture and improving diversity, leadership and collaboration.

The ABS Strategic Workforce Plan links to a series of well-established people related plans and strategies. These include the Statistical Capability Plan, and a suite of diversity plans (Workplace Diversity Action Plan, Reconciliation Action Plan and the Gender Diversity Action Plan) which aim to attract and retain a diverse and capable workforce.

To equip and enable an agile workforce, the ABS is currently implementing a flexible working environment. This offers ABS staff more flexible working conditions and provides cost savings through more efficient use of property. ABS staff can efficiently work from home, or remotely, through smarter use of technology, with all staff working from mobile computing devices on an enhanced computing network.

The ABS's learning management system, CapabilityPlus, provides a contemporary blended learning environment – providing easy online access to capability development options for field and office staff (as well as for external clients). To support efficient and effective work practices, staff can search a vast store of corporate knowledge online, covering corporate services, statistical services, policy and legislation and technological support through the ABS knowledge management system, Services@ABS.

The AIHW similarly recognises the importance of its human resources in its success. The AIHW has a number of strategies for enhancing its workforce and future people capability, outlined in its [Corporate Plan](#).

Summary of assessment

	Item	Assessment
Recommendation	<p>Recommendation 3: Ensure adequacy of human financial and technical resources available to the National Statistical Authorities for the production and dissemination of official statistics</p> <ul style="list-style-type: none"> i. sufficient to allow National Statistical Authorities to meet their commitment to quality, and to meet professional standards thereby fulfilling their role as providers of reliable, relevant and accessible data for national and international use; ii. adequate to produce a minimum core set of data, to be defined nationally or internationally, to monitor the economy, society and the environment. 	<p>Compliant.</p> <p>In real terms the funding of the ABS has reduced. The ABS is working with government funding agencies and key users to retain a workable and stable financial situation.</p>
Practi	<p>3.1. National Statistical Authorities have sufficient funding for statistical production and dissemination, to support staff training, to develop computing resources, and to implement innovation.</p>	<p>Substantially compliant.</p> <p>Statistical production</p>



Resources are adequate in magnitude and in quality to meet statistical needs.	and support functions are managed within allocated resources.
3.2. The adequacy of resources is regularly monitored.	Fully compliant.
3.3. The scope, detail and costs of statistics are commensurate with needs (ECoP).	Substantially compliant. Some statistics for which there is high demand are not able to be produced within current resources.
3.4. Procedures exist to assess and justify demands for new statistics against their cost (ECoP).	Fully compliant.
3.5. Procedures exist to assess the continuing need for all statistics, to see if any can be discontinued or curtailed to free up resources (ECoP).	Fully compliant.
3.6. National Statistical Authorities implement a policy of continuous vocational training for their staff (ECoP).	Fully compliant.



RECOMMENDATION 4

Protect the privacy of data providers (including individuals, households, enterprises, administrations, and all levels of government) and guarantee by law the confidentiality of the individual information provided and its use for statistical purposes only.

Privacy

The Australian Bureau of Statistics (ABS) protects the privacy of all data providers. These protections are guaranteed by law. As an Australian Government agency, the ABS, and all other Australian Government official statistics producers, comply with obligations under the [Privacy Act 1988](#) (Privacy Act) and handle personal information in accordance with the [Australian Privacy Principles](#) (APPs). The APPs regulate how national statistical authorities may collect, use, disclose and store personal information, and how individuals may access and correct the personal information that is held.

All entities that produce Australian official statistics (e.g. the [ABS](#), the [Australian Institute of Health and Welfare](#) (AIHW), and the [Australian Bureau of Agricultural and Resource Economics and Sciences](#) (ABARES)) have a privacy policy which outlines how personal information is handled. In addition to Commonwealth level legislation, each Australian state and territory, other than South Australia and Western Australia, has specific [privacy legislation](#). South Australia has issued an administrative instruction requiring its government agencies to generally comply with a set of Information Privacy Principles and has established a South Australian privacy committee to handle privacy complaints. Various confidentiality provisions cover Western Australian government agencies and some of the privacy principles are provided for in the [Freedom of Information Act 1992](#) (WA) overseen by the [Office of the Information Commissioner](#) (WA).

The [Notifiable Data Breaches scheme](#) establishes legal requirements for entities, including all official statistics producers, in responding to data breaches. Entities have data breach notification obligations when a data breach is likely to result in serious harm to any individuals whose personal information is involved in the breach. This transparency helps to foster public trust and social licence.

The [Australian Government Agencies Privacy Code](#) (the Code) sets out specific privacy requirements and requires agencies to move towards a best practice approach to privacy governance to help build a consistent, high standard of personal information management across all Australian Government agencies, including official statistics producers.

The Code introduces a requirement for all government agencies to undertake a privacy impact assessment for all high privacy risk projects or initiatives that involve new or changed ways of handling personal information. A privacy impact assessment is a tool that can be used to assist in assessing the impact a project, or a process, might have on the privacy of individuals. It is a systemic assessment that identifies potential privacy impacts and recommends actions that manage, minimise or eliminate those impacts. This ensures that privacy is a key consideration for all new data sources, high risk data linkage projects, and new and novel uses of data where there is significant



change to current practice. The ABS publishes a [register of data-related](#) privacy impact assessments on the ABS website.

The ABS fosters a strong privacy culture by requiring all staff to undertake privacy training at regular intervals, providing regular privacy communication and messaging, and uses privacy-by-design principles to ensure privacy is considered at all stages of project development and implementation. This approach was successfully used in the recent [Australian Marriage Law Postal Survey](#) and is being used in the 2021 Census program.

Other lead Australian Government statistical authorities have a similar focus on ensuring privacy and follow similar privacy practices. In addition, the AIHW is guided by the [AIHW Ethics Committee](#), established under Section 16 of the [Australian Institute of Health and Welfare Act 1987](#), which, among a range of issues, considers compliance with the Privacy Act.

Confidentiality guaranteed by law

Statistical confidentiality is guaranteed by sections 12 and 13 of the [Census and Statistics Act 1905](#) (CSA). Any information released under section 12 of the CSA must be released in a manner that is not likely to enable the identification of a particular person or organisation. Information released under section 13 of the CSA is subject to the [Statistics Determination 1983](#) (the Determination), a key legislative instrument under the CSA, which sets out the circumstances under which the ABS may release certain types of statistical information collected under the CSA, including:

- what information can be released;
- who the information can be released to; and
- any conditions that apply to how recipients may use that information.

Nothing in the Determination alters the requirement under Section 13 of the CSA that information of a personal or domestic nature must not be released in a manner that is likely to enable the identification of a person.

Section 19 of the CSA outlines very strong secrecy provisions to ensure statistical confidentiality. It is a criminal offence for any past or present ABS officer to disclose any information collected under the CSA, except where explicitly enabled by the CSA.

All ABS officers are bound for life to maintain the secrecy of information collected under the CSA, and sign an undertaking of fidelity and secrecy upon commencement and at regular intervals throughout their employment. Before signing this document, ABS procedures and processes ensure that the signing party fully understands their life long obligations and the possible penalties for non-compliance.

The CSA provides for harsh personal penalties should secrecy not be maintained, including significant fines and even imprisonment.

Australian official statistics producers understand that maintaining confidentiality is both a legal and ethical obligation. Maintaining confidentiality (i.e. protecting secrecy, privacy and identity) is essential to preserving public trust in data custodians – the agencies that collect, manage and release data. Public trust and social licence are critical to producing high quality official statistics.



The ABS has well established policies, procedures and guidance material to ensure that confidentiality is maintained and appropriate, safe access to statistics and microdata is granted where deemed safe.

The [ABS Confidentiality series](#) provides further information and acts as a guideline to other Australian statistical producers.

Safe access to data

The ABS provides access to microdata collected through ABS surveys, censuses, administrative data and integrated data from a range of sources. Microdata is data in a unit record file that provides detailed information about people, households, or businesses. Microdata is used to support informed decision making, research and discussion within governments and the community. It is valuable for researchers and analysts who want to conduct sophisticated analysis of the data.

Microdata is released at the discretion of the Australian Statistician, after a thorough and robust assessment process conducted by the ABS. The ABS has protections in place to ensure microdata is effectively managed to maintain the confidentiality of individuals and businesses. This is fundamental to the trust the Australian public has in the ABS, and that trust is in turn fundamental to the excellent quality of ABS information and statistics. Without trust, survey respondents may be less forthcoming or truthful in answering ABS questionnaires.

The ABS Disclosure Review Committee advises the Chief Methodologist and the Australian Statistician on the disclosure risks and mitigation strategies associated with the dissemination of microdata and, on an exceptional basis, aggregate statistics. The Disclosure Review Committee also continuously improve procedures, processes and policies related to disclosure risks.

To ensure microdata is released in a way that is not likely to enable the identification of an individual, the ABS:

- removes all directly identifying information such as names and addresses;
- ensures data items are unlikely to identify respondents by the application of a number of different confidentialisation methods; and
- checks for records with uncommon combinations of responses, and may alter them slightly to ensure individuals or organisations cannot be identified.

In addition, the ABS places restrictions on how users may access and use some types of microdata. These restrictions are set out in the undertaking, signed by each user organisation's designated responsible officer, and for some modes of access, in an individual undertaking which is signed by the microdata user.

Each individual must submit an application, agreeing to the conditions of accessing and using ABS microdata. The ABS provides [detailed information](#) regarding the types of microdata that can be accessed, whom may access it, and under what conditions.

The ABS has adopted the [Five Safes Framework](#) to provide a structure for assessing and managing disclosure risk that is appropriate to the intended data use. This approach is used by several other



entities in the Australian statistical system and is used internationally by the Office of National Statistics in the United Kingdom and Statistics New Zealand.

The Five Safes Framework takes a multi-dimensional approach to managing disclosure risk. Each 'safe' refers to an independent but related aspect of disclosure risk. The framework poses specific questions to help assess and describe each risk aspect (or safe) in a qualitative way. This allows data custodians to place appropriate controls, not just on the data itself, but on the manner in which data are accessed. The framework is designed to facilitate safe data release and prevent over-regulation.

The five elements of the framework are:

- safe people;
- safe projects;
- safe settings;
- safe data; and
- safe outputs.

Keeping information secure

The ABS has a number of safeguards in place to protect the data it holds (see figure 1). These include:

- strong information technology security arrangements that conform with the Australian Government Information Security Manual;
- strict control of access to all ABS premises in accordance with the Commonwealth Protective Security Manual;
- personnel security arrangements, including security checks for all ABS staff and a requirement to sign an undertaking of fidelity and secrecy;
- a secured internet gateway reviewed annually by the Australian Signals Directorate;
- regular protective security risk reviews;
- an ongoing program of security audits; and
- ABS staff only have access to limited data that they need for their work.



Figure 1 – ABS data security



Summary of assessment

	Item	Assessment
Recommendation	Recommendation 4: Protect the privacy of data providers (including individuals, households, enterprises, administrations, and all levels of government) and guarantee by law the confidentiality of the individual information provided and its use for statistical purposes only.	Fully compliant.
Good Practice	4.1. Statistical confidentiality is guaranteed by law (ECOP).	Fully compliant.
	4.2. Specific measures are in place to ensure the full protection of individual data from any potential disclosure without consent, with the aim to ensure the confidence of data providers in participating in statistical surveys: written instructions and internal guidelines are provided to statistical authority staff on the full protection of statistical confidentiality in the production and dissemination processes; appropriate penalties are prescribed for wilful breach of confidentiality and for any disclosure of individual data of a private nature that could infringe upon private life. These penalties are well-known to statistical staff and new employees sign legal confidentiality commitment upon appointment.	Fully compliant.
	4.3. The confidentiality policy is made known to the public (ECOP).	Fully compliant. Comprehensive information on ABS confidentiality practices is available on the ABS website.
	4.4. Physical, technological, administrative and organisational provisions are in place to protect the security and integrity of statistical databases (ECOP).	Fully compliant.
	4.5. Provisions are in place and internal guidelines are available to allow external user access to micro-data for statistical research purposes under strict protocols and only after anonymisation of the data.	Fully compliant.
	4.6. Privacy issues as regards the use of new data sources (e.g. social network data) are identified and procedures are implemented to guarantee statistical confidentiality.	Fully compliant.



RECOMMENDATION 5

Ensure the right to access administrative sources to produce official statistics.

To this end, Adherents should ensure that:

- i. National Statistical Authorities have the right to access administrative data for the regular production of official statistics and to use them in the interest of ensuring quality of official statistics, raising the analytical value of official statistics, reducing burden on survey respondents and reducing the cost of statistical programmes;**
- ii. National Statistical Authorities co-operate with owners of administrative records as regards their statistical quality and have authority to influence their design to ensure they are fit for statistical purposes.**

The administrative data held by the Australian Government is a strategic national resource that holds considerable value for growing the economy, improving service delivery and transforming policy outcomes for Australia. The Australian Government has outlined clear expectations that the Australian Bureau of Statistics (ABS) will look for opportunities to leverage existing administrative data sources where suitable, and that the ABS will work collaboratively across the Australian Government to unlock public sector data holdings.

The ABS has identified 'delivering new statistical solutions to maximise the value of public data' as a strategic priority. This clearly demonstrates the value that the ABS places on the use of alternate data sources such as administrative data.

Other producers of national statistics, such as the Australian Institute of Health and Welfare (AIHW) and the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES), recognise the opportunities presented by administrative data sources. Much of the data held by the AIHW is from administrative sources, and ABARES has announced strategies aimed at increasing use of administrative data to "collect once and use multiple times".

Legislative arrangements for the collection of administrative data

The [Census and Statistics Act 1905](#) (CSA) outlines the legislative powers through which the ABS collects data. Administrative data that is collected by the ABS is collected under the CSA and therefore it has the full protections of the CSA.

For administrative data, particularly relevant sections of the CSA are:

- section 10(1) which empowers the Statistician to prepare forms relating to the collection of statistical information in relation to any matter referred to in Section 8 or 9 of that Act;
- section 10(3) which empowers the Statistician to request a form to be filled up and returned to an Authorised Officer;



- section 12(1) which requires the Statistician to compile and analyse the statistical information collected under the Act, and to publish the results of any such compilation and analysis, or abstracts of those results; and
- section 19 which prohibits an ABS officer disclosing any information given under the Act, except as provided by the Act.

Similarly, while the [Australian Institute of Health and Welfare Act \(1987\)](#) does not explicitly refer to administrative data, this Act outlines the functions of the AIHW and enables the collection of administrative data related to health and welfare issues. Much of the AIHW's data is person-centred data is derived from government service information for which there are legislative and governance arrangements, including the [AIHW Ethics Committee](#), that focus on protecting the privacy of this data.

The ABS can compel the provision of administrative data under the CSA, however in practice the ABS seeks the cooperation of the custodians of datasets and establishes Memoranda of Understanding (MOUs) for administrative data to be voluntarily provided. While the conditions in MOUs are not legally binding, the ABS has the power to direct data custodians to provide information to the ABS. This generally occurs when the custodian:

- has requested that the ABS direct them to provide data; and/or
- legislative barriers prohibit data from being provided voluntarily.

When releasing official statistics compiled using administrative data, the ABS considers the secrecy and confidentiality provisions of the entity from which the data was collected and is unlikely to enter into an agreement to release information that would conflict with the secrecy provisions and practices of a government data provider. There are more than 500 existing data secrecy and confidentiality provisions across more than 175 different pieces of Australian Government legislation.

The AIHW has a number of national agreements, such as the [National Health Information Agreement](#), through which administrative data is collected. The function of these agreements is to enable and govern data exchange and use between jurisdictions in Australia.

New legislative arrangements for the Australian data system are being developed to support recently announced whole-of-Australian-government data sharing initiatives. For more information, see recommendation 1.

Ensuring the quality of administrative data sources for the production of official statistics

The quality of administrative data sources is important for statistical production. In Australia, this is primarily managed through cooperation and agreements between statistical authorities and data custodians. For example, the National Civil Registration and Statistics Improvement Committee comprises representatives from each state and territory registry of births, deaths and marriages, the ABS, and invited international representatives. The committee exists in addition to formal agreements between statistical authorities and Registrars, and is a cross-jurisdictional body established to develop and oversee collective strategies to advance and coordinate improvements to Australia's civil registration and vital statistics system, which are the basis for a number of [Essential Statistical Assets](#) for Australia. The primary responsibility of the committee is to identify and



progress the policies and initiatives required to deliver a more seamless, harmonised and robust national civil registration and vital statistics system working across all Australian jurisdictions.

Where administrative data is used in statistical production, care is taken to ensure the coherence of the data with other sources, for example ensuring the correct application of standards and the identification of possible data gaps and overlaps. Coherence can be assessed using the [ABS Data Quality Framework](#) is applicable to administrative data sources, which is publicly available, including information on how to apply the framework. For more information, see recommendation 8.

Use of administrative data in the production of official statistics

Administrative data has been a significant source of information used in the compilation of official statistics in Australia for a very long time. For example,

- information from the state and territory registries of births, deaths and marriages has been used in the ABS's official population estimates since the 1900s;
- trade in goods and services from the Department of Immigration and Border Control is used extensively in ABS international trade statistics;
- aggregate financial transactions reported by financial institutions is used in ABS financial statistics; and
- personal and business tax data from the Australian Taxation Office are used extensively by the ABS in statistical infrastructure as well as economic series.

Private sector data sources, such as retail scanner data from supermarkets, provide the ABS with real time information on the prices of key items that represent about 25 per cent of the input into the Consumer Price Index. All of these uses are enabled through cooperation with data custodians.

Administrative sources for data integration

The ABS is committed to maximising the value of public data and statistics. One way to do this is through data integration, which is a key priority for the Australian Government.

In 2009, Australia instituted an administrative process to accredit agencies to serve as 'accredited integrating authorities' for existing data being brought together to create more valuable, statistical and research datasets. Integrating authorities are mostly national statistical authorities, such as the ABS and the AIHW. Integrating authorities are responsible for the implementation of data integration projects and the management of the integrated datasets throughout their life cycle, ensuring full compliance with commitments made to data custodians and in line with the High Level Principles for Data Integration involving Commonwealth Data for Statistical and Research Purposes and supporting governance and institutional arrangements. Integrating authorities are also responsible for providing researchers with safe and secure access to integrated data in line with the requirements of data custodians.

The Australian Government is working towards enacting similar governance arrangements for accredited data authorities in a data sharing and release legislative package, which will support the Australian data system. These authorities are expected to be catalysts for efficient and safe sharing and release of data. Accredited data authorities will engage with data custodians and users on matters relating to data availability and use. Data sharing agreements between data custodians,



accredited data authorities and data users will be a key part of the governance framework. Accredited data authorities and data custodians will work together to implement a trusted user framework along the lines of the [five safes model](#), which is widely accepted as international best practice.

Summary of assessment

	Item	Assessment
Recommendation	<p>Recommendation 5: Ensure the right to access administrative sources to produce official statistics.</p> <p>To this end, Adherents should ensure that:</p> <ul style="list-style-type: none"> i. National Statistical Authorities have the right to access administrative data for the regular production of official statistics and to use them in the interest of ensuring quality of official statistics, raising the analytical value of official statistics, reducing burden on survey respondents and reducing the cost of statistical programmes; ii. National Statistical Authorities co-operate with owners of administrative records as regards their statistical quality and have authority to influence their design to ensure they are fit for statistical purposes. 	Compliant. Generally, ABS seeks for administrative data to be voluntarily provided under Memoranda of Understanding.
Good Practice	<p>5.1. The Statistical Authorities are authorised by law to use administrative records for the regular production of official statistics.</p>	Substantially compliant. In practice, administrative data is collected through cooperation with data custodians.
	<p>5.2. Administrative sources are used whenever possible and cost-effective to avoid duplicating requests for information and reduce reliance on direct surveys.</p>	Substantially compliant. Strategies are being developed where this is not currently the case.
	<p>5.3. National Statistical Authorities are involved in the design of administrative data in order to make administrative data more suitable for statistical purposes. (ECoP)</p>	Partially compliant.
	<p>5.4. National Statistical Authorities co-operate with owners of administrative data in assuring data quality (ECoP).</p>	Substantially compliant.
	<p>5.5. Agreements are made with owners of administrative records which set out their shared commitment to the use of these data for statistical purposes (ECoP).</p>	Fully compliant.



	<p>5.6. Recommended practices are available for the reporting and presentation of administrative data.</p>	<p>Fully compliant.</p>
	<p>5.7. Linking administrative data with survey data is encouraged by National Statistical Authorities with the aim of reducing the burden on respondents, reducing the costs in producing official statistics, and increasing the analytical value of official statistics.</p>	<p>Fully compliant.</p>



RECOMMENDATION 6

Ensure the impartiality, objectivity and transparency of official statistics, through the development, production and dissemination by the National Statistical Authorities of statistics respecting scientific independence put in place in an objective, professional and transparent manner in which all users are treated equitably. Equitable treatment implies in particular equal access to data by all users.

The legal frameworks in which the Australian Bureau of Statistics (ABS) and Australian Institute Health and Welfare (AIHW) operate are designed to ensure the impartiality, objectivity and transparency of official statistics. For more information, see recommendations 1 and 2.

Robust Methodology

Producers of Australia's official statistics understand the importance of robust methodological approaches and drawing expertise from multiple sources. For example, the ABS's Chief Methodologist provides the expertise and guidance on methods relating to the design, collection, compilation, analysis, dissemination and management of statistical data. The Chief Methodologist leads research to continually improve ABS methods and approaches and support the statistical areas of the ABS in implementing best practice in their data collections. The ABS has a suite of methodological policies and guidance material to ensure that methodologies are applied consistently across the ABS's many statistical products.

When considering methodological changes to statistics, the ABS engages with stakeholders through various advisory groups and other appropriate channels. Information papers are published by the ABS to ensure transparency of changes to methods and approach, and to allow interested stakeholders to contribute and provide feedback. Often, these information papers will include peer review from international experts. For more information, see recommendation 7.

Dissemination

The ABS has well-developed manuals and clear corporate guidelines for the publication of official statistics to ensure consistency in the presentation of data. This facilitates easier comparison and makes statistics easier to understand, which is particularly important for data such as time series and trend data that can be difficult to interpret. The ABS provides specific guidance to assist users understand particular types of statistics, such as [Time Series Analysis: The Basics](#) explanatory information.

It is ABS policy that remedial action must be taken when an error or mistake is discovered in a product. It is also ABS policy to publish corrections when errors in a product are found. For more information, see recommendation 9.

The ABS and AIHW provide release calendars to provide advice regarding upcoming releases. For more information, see recommendations 8 and 9.



ABS statistical releases contain explanatory notes which outline the methodology used to collect, compile and analyse data, along with data quality statements and other relevant information. This helps ensure the transparency and usefulness of the statistics and data released. The AIHW also comment on data quality, methods and interpretation in their reports and statistical releases. For particularly significant ABS statistical releases, a stand-alone explanatory publication may be released, such as the [Census of Population and Housing: Understanding the Census and Census Data, Australia, 2016](#). For many ABS releases, an accompanying media statement will be released. Media releases are factual and aim to help journalists use and understand data easily, and do not make comment on anything other than the statistics being released. For more information, see recommendation 8.

Embargo

To provide equality of access for all, the ABS releases its statistics and publications via its website to all government, commercial and public users of ABS statistics, simultaneously. In general, this occurs at 11:30 am (Australian Eastern Standard time) on the day of release. Prior to this release date and time, all ABS statistics are treated as confidential and are under embargo. The AIHW also use the concept of embargo to ensure equal access to their statistics.

From time to time, pre-release access to ABS statistics and publications may be granted to selected stakeholders as outlined in the [policy on pre-release access to ABS statistics and publications](#). Pre-release access is only provided for finalised statistics and publications. The ABS does not provide pre-release access to seek comments on these finalised statistics and publications.

The provision of pre-release access may be appropriate where either:

- a. the interpretation of the release is likely to be complex enough to require analysis in advance to support informed responses and commentaries; or
- b. on the day of release a relevant Australian government official, Australian government entity or Australian government minister is likely to be asked to provide public comment on the release.

For selected government agencies, a secure 'lock-up' facility is provided for pre-release access to both market sensitive and estimated resident population statistics. This enables authorised government officials and ministerial staff time to analyse the release and develop briefings to be provided to relevant ministers after the embargo is lifted.

Authorised persons attending a lock-up are required to remain in a secure room managed by ABS staff, and are prohibited from communicating any information from the statistical release to anyone outside the room until after the embargo is lifted. Attendees at the lock-up are also required to sign security undertakings which include provision for prosecution under the [Crimes Act 1914](#) for anyone who breaches the conditions for attending the lock-up.



Summary of assessment

	Item	Assessment
Recommendation	Recommendation 6: Ensure the impartiality, objectivity and transparency of official statistics, through the development, production and dissemination by the National Statistical Authorities of statistics respecting scientific independence put in place in an objective, professional and transparent manner in which all users are treated equitably. Equitable treatment implies in particular equal access to data by all users.	Compliant.
Good Practice	6.1. Official statistics are collected, compiled and disseminated on an impartial and objective basis and determined by statistical considerations only.	Fully compliant.
	6.2. Equal access to official statistics for all users at the same time is guaranteed by law. If a public or private body has access to official statistics prior to their public release, this fact and subsequent arrangements are publicised and controlled. In the event that a leak occurs, pre-release arrangements are revised so as to ensure impartiality.	Substantially compliant. Equal access is not enshrined in law but is deeply embedded in ABS culture and practices and across the national statistical system.
	6.3. Choices of sources and statistical methods as well as decisions about the dissemination of statistics are informed by statistical considerations (ECoP).	Fully compliant.
	6.4. Errors discovered in published statistics are corrected at the earliest possible date and publicised (ECoP).	Fully compliant.
	6.5. Information on the methods and procedures used is publicly available (ECoP).	Fully compliant.
	6.6. Statistical release and statements made in press conferences are objective and non-partisan (ECoP).	Fully compliant.
	6.7. Statistical release dates and times are announced in advance. A twelve-month-ahead advance release calendar is provided. Official statistics are released according a standard daily time. Any divergence from the dissemination time schedule is publicised in advance, explained, and a new date is set.	Substantially compliant. A six monthly advance release schedule is published on the ABS website.
	6.8. Any major revisions or changes in methodologies are announced in advance.	Substantially compliant. Wherever possible the ABS provides advance notice of revisions or changes.



	<p>6.9. Internal guidelines are made available by statistical authorities to respond to erroneous interpretation and misuse of statistics. These are well-known by staff.</p>	<p>Substantially compliant. Guidelines are available and practices are embedded to respond to erroneous interpretation and misuse of statistics.</p>
	<p>6.10. Statistical plans and programmes, methodologies, processes and procedures, quality assessments are made publicly available by the statistical authorities.</p>	<p>Fully compliant.</p>
	<p>6.11. Guidelines exist for the presentation of data, including the treatment of time series breaks, and seasonally adjusted data, with the aim to ensure that official statistical data and metadata are presented in a way that facilitates proper interpretation and meaningful comparisons.</p>	<p>Fully compliant.</p>



RECOMMENDATION 7

Employ sound methodology and commit to professional standards used in the production of official statistics.

To this end, Adherents should:

- i. apply appropriate statistical procedures and methods, including a stated revisions policy;**
- ii. strive to adhere to international norms and standards, such as methodological manuals developed by the United Nations Statistical Commission or by the OECD, and international classifications in the statistics collected by the OECD.**

Methods and processes

Official statistics produced by the Australian Bureau of Statistics (ABS) use scientific, objective and defensible methods, and well-developed and tested procedures throughout the statistical process. The methods used to collect, compile and produce statistical outputs are described in the technical notes in each statistical publication, available on the [ABS website](#). In addition, key subject areas like national accounts, labour statistics, and the consumer price index have 'concepts, sources and methods' publications which go into much greater detail, which are also freely available on the ABS website.

The ABS methodology division, led by the Chief Methodologist, ensures that the methods used throughout the statistical process and that underpin ABS statistical outputs are based on sound, defensible principles. The ABS has prepared a set of methodological development plans to guide future methodological development, particularly in the context of the ABS transformation. The ABS uses a range of evaluation methods to assess the extent and direction of the impact of change as our statistical surveys, collection methods, and supporting systems evolve.

ABS survey design, sample selection and estimation uses well-established design-based or model-assisted methods underpinned by sound statistical theory. Enhancements to such methodologies are well-tested using real and/or simulated data to establish their properties before implementation, and are subject to external peer review processes, such as through the Methodology Advisory Committee.

The ABS produces internal documentation on the sample design and the estimation strategy for each cycle of each household survey, except the [Monthly Population Survey](#) where a sample re-design report is produced every five years. Information about the survey design is published with the survey results, such as for the [Personal Safety Survey](#). The sample design reports are signed off by the senior subject matter staff and the Chief Methodologist.



For annual and less frequent business surveys, sample designs, selections and estimation methods are reviewed each cycle and updated for changing requirements. For ongoing sub-annual business surveys, frames and selections are refreshed each quarter to ensure the sample is representative.

The ABS Business Register provides a frame for most ABS economic surveys to enable a consistent, coherent, point-in-time picture of the Australian economy. The ABS Business Register is a dynamic database that is updated daily via profiling activity and monthly using administrative data. In order to maintain the ABS Business Register, the ABS profiles large, complex and economically significant organisations and structures them to accord with the economic units model.

Business sample designs are reviewed regularly and design health is frequently measured through management information such as monitoring the number of outliers and comparing design and achieved relative standard errors over time. Estimation performance is monitored and reviewed with the development of improved methodologies and the availability of improved auxiliary information. Information on sample design and estimation methods is available on the ABS website in the explanatory notes section of each statistical publication.

For household surveys and the Census of Population and Housing, editing and imputation methods used for any particular cycle tend to be similar to those used for previous cycles. However, important issues or weaknesses from previous cycles are identified through evaluation, and updated methods are developed and implemented as appropriate. For business surveys, editing strategies and significance methods are reviewed periodically to improve efficiency and effectiveness including the balance between micro (input) and macro (output) editing. The performance of imputation strategies are frequently monitored and reviewed as improved methods and auxiliary data become available. Information on editing and imputation methods is available on the ABS website in the explanatory notes section of each statistical publication.

Data collection, entry, and coding methods are revised between cycles of repeating collections as required. This is typically driven by shifts in data users' needs, availability of data sources, infrastructure changes, policy changes, and data quality required. Revisions are conducted in consultation with data users, funding bodies, subject matter experts, and expert methodologists. Evaluation of data collection instruments, methods and materials are conducted when changes are made, for example through cognitive testing of survey questionnaires. For more information on revisions, see recommendation 8.

The ABS has established and continues to update methods of collection, development and evaluation. The standards and guidelines are documented internally in manuals. Evaluation methods are broadly categorised into three groups:

- evaluation before going into the field, including expert review, focus groups, card sorting, cognitive interviewing, usability testing, and behaviour coding;
- field evaluation, including observational studies, split sample experiments, pilot tests, and quality checks; and
- evaluation after going into the field, including survey performance metrics analysis, response and error analysis, post-enumeration studies and interviewer debriefings.



The [ABS Forms Design Standards Manual](#) is also published on the ABS website, and, at the time of this assessment, is being updated.

Official statistics producers in Australia follow sound methodological processes. The Australian Institute of Health and Welfare (AIHW) implements a range of methodologies to develop, collect, and analyse statistics, consistent with best practice. Information about the methodologies used is available on the [AIHW website](#).

Managing statistical change in ABS transformation

At the time of this assessment, the ABS is transforming across all aspects of the organisation. This includes the Statistical Business Transformation Program. The ABS is transforming to embrace new technology and statistical methods, collaborate better with partners and improve our culture so as to better meet information needs. See recommendation 3 and 12 for more information.

ABS methodology improvements and transformation are an integral part to the ABS transformation. Methodology development plans were created to provide leadership and direction for transforming ABS methodological processes.

The ABS is actively managing the impact of the transformation to produce high quality official statistics. The ABS methodology division has developed methodologies for statistical impact measurement. Transition plans for statistical collections are being developed to manage statistical risk involved with transformation, outlining short, medium, and long term mitigation strategies.

Risk in the ABS is managed in accordance with the ABS risk management framework, which aligns with [Commonwealth Risk Management Policy](#) and is regularly reviewed and improved. A specific methodology risk management plan is used, which includes consideration of risks relating to transformation.

For more information on the management of data quality, see recommendation 8.

Standards, concepts and classifications

The ABS delivers high quality, relevant official statistics by implementing national and international statistics standards and frameworks. One of the functions of the ABS (as designated by the [Australian Bureau of Statistics Act 1975](#)) is to develop standards for statistics and ensure compliance.

All statistical standards and classification products used by the ABS are available to the general public and other statistical producers via the ABS website ([standards](#), [classifications](#)). For more detail about how the ABS works with other official statistical producers to implement standards and classifications, see recommendation 5, 10 and 11. The ABS also publishes a range of information about the [concepts](#) used in its statistical collections. A range of international classifications and standards are used by the ABS in a variety of ways. A list of these is available on the ABS website.

Some key examples of ABS adoption of standards and classifications are outlined below.

- The [Australian Statistical Geography Standard](#) (ASGS) provides a framework of statistical areas used by the ABS and other organisations to enable the publication of statistics that are comparable and spatially integrated. The ASGS provides users with an integrated set of



standard areas that can be used for analysing, visualising and integrating statistics produced by the ABS and other organisations.

- The [Australian and New Zealand Standard Industrial Classification](#) (ANZSIC) has been developed for use in the compilation and analysis of industry statistics in Australia and New Zealand. The ABS and Statistics New Zealand jointly developed this classification to improve the comparability of industry statistics between the two countries and with the rest of the world.
- The [Australian and New Zealand Standard Classification of Occupations](#) (ANZSCO) has been developed for us in the collection, publication and analysis of occupation statistics. The ANZSCO was developed by the ABS, Statistics New Zealand, and the Australian Government Department of Employment and Workplace Relations in 2006 to improve comparability of occupation statistics. The ANZSCO has since been reviewed and updated by the ABS and Statistics New Zealand.
- The conceptual framework followed for Australia's international merchandise trade statistics is largely consistent with the international standards set out by the [United Nations](#). The compilation of international merchandise trade statistics is also influenced by the requirements of the international standards adopted for other macroeconomic statistics, such as the [System of National Accounts](#) from the United Nations and the [Balance of Payments and International Investment Position Manual](#) from the International Monetary Fund.

The ABS uses international standards, such as the [Generic Statistical Business Process Model](#) and the [Generic Statistical Information Model](#), in statistical production, enterprise architecture development, and risk management.

Cooperation with experts and advisory groups

Expert advisory groups exist and meet regularly to provide advice and guidance on a range of key topics. The ABS Methodology Advisory Committee, chaired by the ABS's Chief Methodologist, is an expert advisory group of statisticians and data scientists drawn mainly from, but not restricted to, universities across Australia and New Zealand. The function of the Methodology Advisory Committee is to provide expert advice to the Chief Methodologist on selected methodological issues that arise in the production of national statistics, for example, survey design, data linkage, analysis, confidentialisation and dissemination. In addition to the Methodology Advisory Committee, there are a number of [subject-matter specific advisory groups](#) that advise the ABS, such as the ABS Economic Statistics Advisory Group and the ABS Population and Social Statistics Advisory Group. This strong methodological leadership, coupled with the independence of the Australian Statistician, ensures that the ABS makes collection, compilation, analysis and dissemination decisions based on statistical factors. Similarly, the AIHW chairs, is a member of, and is advised by, a number of [relevant committees](#).

The ABS has connections with and is active in the Statistical Society of Australia, the Australian Mathematical Sciences Institute, and the Australian Research Council Centre of Excellence for Mathematical and Statistical Frontiers. The ABS enters into collaborations and contracts with Australian universities to further develop methodologies for use in official statistics, and also utilises academia to conduct short courses in complex methodological topics for staff as well as supporting



further study. For example, at the time of this assessment, a number of ABS staff are undertaking a Masters of Advanced Data Analytics at the Australian National University.

Internationally, the ABS exchanges methodological developments and visits with staff from other National Statistical Offices (NSOs), also organising secondments of staff from other NSOs to further boost capability. The ABS regularly organises and hosts visits from leading international experts in various aspects of statistical methodology, to discuss developments and develop staff capability.

The AIHW leverage a number of [advisory groups](#), including the AIHW Ethics Committee, the Juvenile Justice Research and Information Group, the Australian Health Classifications Advisory Committee, the National Prisoner Health Information Committee, and the Primary Health Care Advisory Committee.

Recruitment and development of staff

The ABS has developed a statistical capability framework to guide building statistical capability internally, domestically and internationally. The framework has three dimensions: statistical use, statistical production, and statistical leadership. Associated with each of these dimensions are a range of statistical activities and statistical skills. The ABS also makes available to its staff a capability building resource known as [Statistical Skills for Official Statisticians](#).

The [ABS graduate program](#) is run annually and is a key part of how the ABS maintains capability. Many ABS graduates have backgrounds in relevant fields such as: economics, econometrics, statistics, information and communication technology, demography, business, mathematics, computer science and software engineering. ABS graduates are generally employed within one of four streams: statistical analysis and research, methodology, information and communication technology, and corporate. The [AIHW graduate program](#) is also run annually and attracts graduates seeking to apply their qualifications in the field of health and welfare information.

The ABS methodology division runs regular, comprehensive training courses in subjects such as survey methods, and a seminar and workshop series which regularly features external and international speakers aimed at building staff capability.

The ABS's learning management system, CapabilityPlus, provides a contemporary blended learning environment – providing easy online access to capability development options for field and office staff (as well as for external clients). To support efficient and effective work practices, staff can search a vast store of corporate knowledge online, covering corporate services, statistical services, policy and legislation and technological support through the ABS's knowledge management system.

The AIHW similarly recognises the importance of its human resources in its success. The AIHW has a number of strategies for enhancing its workforce and future people capability, outlined in its [Corporate Plan](#).



Summary of assessment

	Item	Assessment
Recommendation	<p>Recommendation 7: Employ sound methodology and commit to professional standards used in the production of official statistics.</p> <p>To this end, Adherents should:</p> <ol style="list-style-type: none"> i. apply appropriate statistical procedures and methods, including a stated revisions policy; ii. strive to adhere to international norms and standards, such as methodological manuals developed by the United Nations Statistical Commission or by the OECD, and international classifications in the statistics collected by the OECD. 	Compliant.
Good Practice	7.1. Official statistics are produced according to strictly professional considerations, including scientific principles and professional ethics with regards to methods and procedures used for the collection, processing, storage and dissemination of statistical data.	Fully compliant.
	7.2. Sound statistical methodology requiring adequate tools and procedures and expertise is implemented and guaranteed by the national statistics law (ECoP).	Fully compliant.
	7.3. International statistical standards, guidelines and good practices are applied in the NSS as appropriate.	Fully compliant.
	7.4. National statistical classifications developed by statistical authorities are consistent with international classifications. Detailed concordance exists between national classifications and the corresponding international classifications.	Fully compliant.
	7.5. Procedures are in place to ensure that standard concepts, definitions and classifications are consistently applied throughout the National Statistical Authorities (ECoP).	Fully compliant.
	7.6. Subject matter advisory committees made up of external experts advise on relevant statistical matters.	Fully compliant.
	7.7. Graduates in the relevant academic disciplines are recruited (ECoP).	Fully compliant.
	7.8. Co-operation with the scientific community, academic institutions and international organisations is organised to improve methodology and the effectiveness of the methods implemented, and to improve methodological and technical skills of staff.	Fully compliant.
	7.9. Strategies for recruitment, as well as processes for technical and managerial development and training of existing staff, are established, implemented and revised as required.	Fully compliant.



7.10. In the case of statistical surveys, questionnaires and systems for production are systematically tested prior to the data collection.	Fully compliant.
7.11. Parallel runs are undertaken when systems or questionnaires are redesigned in any significant way.	Substantially compliant. It is not always possible to perform parallel runs within allocated resources.
7.12. Survey designs, sample selections and estimation methods are well based and regularly reviewed and revised as required (ECoP).	Fully compliant.
7.13. The business register and the frame for population surveys are regularly evaluated and adjusted if necessary in order to ensure high quality. (ECoP)	Fully compliant.
7.14. Data collection, data entry, and coding are routinely monitored and revised as required. (ECoP)	Fully compliant.
7.15. Appropriate editing and imputation methods are used and regularly reviewed, revised or updated as required. (ECoP)	Fully compliant.
7.16. Revisions follow standard, well-established and transparent procedures. (ECoP)	Fully compliant.
7.17. A revision schedule is published by the producers of official statistics.	Fully compliant.
7.18. The design of statistical questionnaires used in survey-based data collection processes is regularly reviewed.	Fully compliant.



RECOMMENDATION 8

Commit to the quality of statistical outputs and processes.

Commit to the quality of statistical outputs and processes, in particular to key quality dimensions as defined in national and international quality assessment frameworks, for instance in the Quality Framework and Guidelines for OECD Statistical Activities: timeliness and punctuality (statistics are released in a timely and punctual manner); relevance (statistics meet the needs of users); accuracy (statistics accurately and reliably portray reality); credibility (confidence is placed by users in statistical products); coherence and comparability (statistics are consistent internally, over time and in space and it is possible to combine and make joint use of related data from different sources); and interpretability and accessibility (see Recommendation 9).

As Australia's official statistical agency, the Australian Bureau of Statistics (ABS) contributes to a high quality statistical system to assist and encourage informed decision making. The ABS is committed to providing leadership in quality management of statistical processes. The [Australian Government](#) has clearly outlined that it expects the ABS to deliver high quality official statistical solutions and to work to improve the management of official statistics.

The ABS has a reputation for, and a culture of, providing high quality national statistics. This is reliant upon the use of well defined, transparent and appropriate quality assurance measures and processes. Quality plays a significant role in the ABS. The highest ABS strategic priority is to deliver high quality official statistics.

Data Quality Framework

The [ABS Data Quality Framework](#) is the primary framework used within the Australian statistical system to provide a standard for assessing and reporting on the quality of statistical information. The ABS Data Quality Framework was one of the first national data quality frameworks in the world. It is aligned to and draws from the [Statistics Canada Quality Assurance Framework](#) and the [European Statistics Code of Practice](#). It consists of seven dimensions of quality: [institutional environment](#), [relevance](#), [timeliness](#), [accuracy](#), [coherence](#), [interpretability](#), and [accessibility](#).

Under the [Australian Bureau of Statistics Act 1975](#), the Australian Statistician is responsible for formulating standards for the undertaking of operations for statistical purposes. The ABS Data Quality Framework was designed for use by a range of data users and providers in different settings, including government agencies, statistical agencies and independent research agencies. For example, the ABS Data Quality Framework was used to assess the quality of performance indicator data linked to a number of National Agreements in key policy areas signed by the [Council of Australian Governments](#). The ABS Data Quality Framework is used by other national statistical authorities and official statistical producers. For example, the [Australian Institute of Health and Welfare](#) (AIHW) and state and territory governments such as [Tasmania](#) and the [Australian Capital](#)



[Territory](#). Other state and territory governments use an amended version, such as [Victoria](#) and [Western Australia](#).

Quality Management

The ABS provides an [overview of data quality management processes](#) on the ABS website for ABS staff and other statistical producers to use. Examples of these resources are listed below.

- A framework for quality management of statistical processes using [quality gates](#). The framework provides a systematic approach for assessing the quality of the statistics at specific points in the process, such that the overall quality of outputs are fit for their intended purposes. Agencies involved in collecting, processing, analysing or disseminating statistics can apply the framework for mitigation against statistical risks in statistical processes.
- Principles for managing [quality of administrative data outputs](#). The principles and best practices to assist in the management of the quality of the acquisition of administrative data can be used by any agency considering a relationship regarding the supply and access of administrative data.

Internally, the ABS also has policies and manuals for staff to draw on to manage quality. Examples of these resources are listed below.

- A quality manual, developed to expand ABS capability for improving the quality assurance of ABS products and to improve the accessibility of information about quality for the use of ABS staff. The quality manual provides general information about quality in the ABS as well as providing specific information relating to statistical collections, sourcing statistics from administrative data and analytical products.
- A risk management framework for managing statistical risk (for example, lack of coherence between published statistics, or breaks in time series). Robust processes around statistical risk ensure that these risks are understood and managed in a cost effective way. A rigorous and pragmatic framework has been applied to key collections, such as Labour Force, National Accounts, Consumer Price Index and Estimated Resident Population.
- Guidelines about notifying users of revisions to previously published statistics as soon as they occur. This includes significant revisions and changes to statistical methods, such as major changes to the statistics (e.g. scope change or survey redesign or a break in the statistical series), major revisions to the data made in the issue or major qualifications pertaining to the statistics e.g. rounding.

Data Quality Statements

The ABS produces a quality declaration against the seven dimensions of quality for every statistical publication (in the explanatory notes section) on the ABS website. The AIHW also produces a public data quality statement for collections for which AIHW acts as the data custodian. Quality statements outline the quality of a collection so users can make a judgement about how fit those statistics are for their purpose. ABS quality statements provide information about sources of sampling and non-sampling error to help outline the accuracy of data. The ABS also has extensive internal clearance processes for statistical publications which explore all sources of error.



The ABS makes information publicly available to assist data users and producers in applying the ABS Data Quality Framework, for example, to create their own data quality statements or assessing data quality.

National quality assessment

The [Essential Statistical Assets](#) (ESA) initiative was the first ever holistic and consistent quality assessment of Australia's most important official statistics. Following from the identification of the 74 essential statistics on the 2013 ESA list, the quality assessments of ESA presented quality assessment results for the statistics, which were developed in partnership with each data custodian.

The quality assessment results showed that most of the 74 identified statistics, which are critical to decision making in Australia, met an acceptable level quality. For example, it was found that 98 per cent of the datasets provided information to help users understand the data and almost all had confidentiality protections in place.

There were still areas for improvement identified across most statistics, as well as three essential statistics which were identified as data gaps. For example, the quality assessment found that 41 per cent of datasets did not meet the critical frequency required by users and 62 per cent of datasets did not use the Australian Statistical Geography Standard (ASGS) for spatial disaggregation. This information was fed back to data custodians, as well as quality descriptions against each of the seven dimensions in the ABS data quality framework.

Quality assessment results are available in the ESA publication on the [ABS website](#).

Public trust and quality statistics

Critical to the quality and sustainability of the ABS and ABS's official statistics is the maintenance of a high level of trust in the integrity of managing information assets. This is particularly relevant where integrity relates to the security of information and the need to maintain confidentiality of that information and the independence and consistency of information with national and international standards.

Results from an [independent 2015 survey](#) showed that 81 per cent of the general public and 100 per cent of informed users trust the ABS. Levels of trust in ABS and ABS products amongst the general community showed a slight increase from 2010 to 2015, but remained unchanged for informed users. There were also high levels of confidence in the general community and informed users in the usefulness and accuracy of future ABS statistics. A 2010 comparison of Australia's results with the European Commission's [Eurobarometer](#) series of surveys suggest Australia's trust of ABS products compare very favourably to that in the European Union. For example, trust in ABS products by informed users was over 80 per cent compared with trust in UK products of less than 40 per cent and Scandinavian countries (which had the highest levels of trust in Europe) at around 70 per cent.

Ensuring quality

ABS continues to produce key economic and population statistics with appropriate coverage, frequency and timeliness as assessed by the International Monetary Fund (IMF) against the Special Data Dissemination Standard. There may be exceptions where the ABS has made an explicit decision not to do so, following consultation with stakeholders, based on Australian needs and



circumstances. ABS material is subject to embargo and a release time and date must be advertised on the ABS Website. The embargo for all ABS published materials is lifted at a specific time, usually 11:30 am Australian Eastern Standard time, on their advertised release date.

The ABS releases preliminary and revised data where relevant, to meet the conflicting demands of accuracy and timeliness. The ABS produces preliminary, revised, and final estimates for the different categories of data, such as population estimates, agriculture commodities and construction work. The latest available data is the most accurate at the time, but as time goes on, estimates become more accurate because there is more known data on which to base them.

For economic and market sensitive statistics, coherence is of particular importance. A key mechanism for ensuring coherence, particularly coherence with international comparisons made by the Organisation for Economic Cooperation and Development, IMF and United Nations, is Australia's adoption of internationally agreed statistical standards and frameworks. Some recent examples include the implementation of the 2008 System of National Accounts, changes to international labour statistics standards, and a new international Government Finance Statistics standard to ensure the consistency and transparency of governments' financial statements. A range of [standards](#), [classifications](#) and [metadata standards](#) are available for Australian official statistics producers to use in their collections.

Improving and reviewing quality

There are several mechanisms in the Australian statistical system for data users to provide feedback about the accuracy, relevance, timeliness and accessibility of official statistical collections. This includes:

- regular review of the [ABS forward work program](#);
- user consultation and engagement (which is also regularly reviewed) (see figure 2 and 3);
- the biennial [ABS stakeholder relationship health assessment](#);
- Essential Statistical Assets initiative to identify priority statistics and assess quality;
- [National Agricultural Statistics Review](#); and
- external and independent reviews as needed (e.g. [APSC Capability Review](#), [2016 Census independent assurance panel quality assessment](#), [independent technical review into the Labour Force Survey](#)).



Figure 2 – ABS engagement pathways

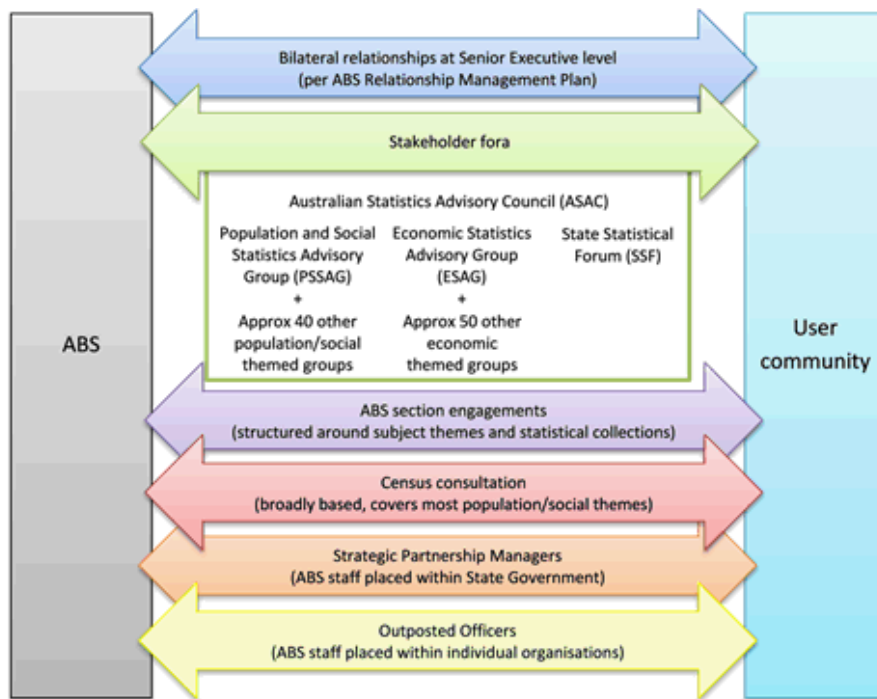


Figure 3 – Key stakeholder fora



Summary of assessment

	Item	Assessment
Recommendation	<p>Recommendation 8: Commit to the quality of statistical outputs and processes.</p> <p>Commit to the quality of statistical outputs and processes, in particular to key quality dimensions as defined in national and international quality assessment frameworks, for instance in the Quality Framework and Guidelines for OECD Statistical Activities: timeliness and punctuality (statistics are released in a timely and punctual manner); relevance (statistics meet the needs of users); accuracy (statistics accurately and reliably portray reality); credibility (confidence is placed by users in statistical products); coherence and comparability (statistics are consistent internally, over time and in space and it is possible to combine and make joint use of related data from different sources); and interpretability and accessibility (see Recommendation 9).</p>	Compliant.
	<p>8.1. A quality policy ensures that the producers of official statistics systematically assess the quality of official statistics. Quality policy is publicly available through guidelines, framework, reports, etc. and staff members receive appropriate training for their application.</p>	Fully compliant.
Good Practice	<p>8.2. An efficient, and possibly independent, quality management system exists. It includes an appropriate organisational structure; quality indicators and other tools and processes for the planning, implementation, and monitoring of the quality of source data; and the collection, processing, and dissemination of official statistics.</p>	Fully compliant.
	<p>8.3. The national quality management systems are based on recognised models for quality frameworks, such as the IMF Data Quality Assessment Framework (DQAF), the European Foundation for Quality Management, European Code of Practice, the European Statistical System Quality Assurance Framework, Total Quality Management and ISO EN 9001, etc.</p>	Fully compliant.
	<p>8.4. There are regular and thorough reviews of key statistical outputs involving external experts where appropriate (ECOP).</p>	Partially compliant. Reviews are as needed.
	<p>8.5. Quality assessment and certification processes guarantee the official nature of statistics produced in various parts of the NSS.</p>	Partially compliant. No certification process, but national statistical authorities have institutional environments that guarantee quality statistical outputs.
	<p>8.6. The organisational structure of the entities belonging to the NSS and governance arrangements are appropriate and regularly</p>	Fully compliant. See Recommendation



reviewed to assess and justify new statistical demands and related costs.	1.
8.7. Information and communication technologies are regularly monitored and assessed for use in data collection, data processing and data dissemination.	Fully compliant. See Recommendation 7.
8.8. Source data, intermediate results and statistical outputs are regularly assessed and validated (ECoP).	Fully compliant.
8.9. National Statistical Authorities put in place processes to ensure that sampling and non-sampling errors are measured, systematically documented, and that information is made available to users.	Fully compliant.
8.10. Studies and analysis of revisions are regularly conducted according to transparent procedures and the results are made available to users.	Fully compliant.
8.11. Timeliness meets international statistical release standards.	Substantially compliant, except where Australian needs are different.
8.12. The periodicity of statistics takes into account user requirements as much as possible (ECoP).	Fully compliant.
8.13. A standard day time for the release of statistics is made public. (ECoP)	Fully compliant.
8.14. Preliminary results of acceptable aggregate accuracy are released when considered useful. (ECoP)	Fully compliant.
8.15. Official statistics are consistent within datasets (i.e. elementary data are based on comparable concepts, definitions and classifications and can be meaningfully combined), across datasets (i.e. data are based on common concepts, units, definitions and classifications, or that any differences are explained and can be allowed for) and over time (i.e. data are based on common concepts, definitions, units, classifications, and methodology over time, or that any differences are explained and can be allowed for).	Fully compliant. See Recommendation 5.
8.16. Statistics from the different sources and of different periodicity are compared and reconciled (ECoP).	Fully compliant. See Recommendation 5.
8.17. Statistics are compiled according to common standards with respect to scope, definitions, classifications, and units in the different surveys and sources. (ECoP)	Fully compliant. See Recommendation 10.



	<p>8.18. Processes are in place to consult users, monitor the relevance and utility of existing statistics in meeting their needs, and consider their emerging needs and priorities. (ECoP)</p>	<p>Fully compliant.</p>
	<p>8.19. User satisfaction surveys are undertaken on a regular basis. The results are publicly released and considered as an input for decisions about plans and priorities and they are reflected in the statistical work programmes.</p>	<p>Fully compliant.</p>



RECOMMENDATION 9

Ensure user-friendly data access and dissemination.

Ensure user-friendly data access and dissemination, so that statistics are presented in a clear and understandable form, released in a suitable and convenient manner, including in machine-readable form ('open data'), can be found easily, and are available and accessible on an impartial basis with supporting metadata and guidance. This also entails a commitment to respond to major misinterpretations of data by users.

Access to and dissemination of official statistics

As Australia's national statistical organisation the Australian Bureau of Statistics (ABS) must publish analysis of all statistical information it collects or acquires under the [Census and Statistics Act 1905](#). In practice, this means the ABS has a culture of making available statistical information in a way that nurtures and maintains high integrity and trust by data providers and the user community. ABS official statistics are available in publications, via social media, on websites, via spreadsheets, via mobile devices, and through self-help products such as TableBuilder which ensures confidentiality while enabling greater customisation of data tables.

Australian producers of official statistics generally disseminate official statistics on their websites as the primary source. The Australian Institute of Health and Welfare (AIHW) develops, collects, analyses and reports information on a broad range of health and welfare issues in Australia, making this information available on its [website](#). The AIHW is committed to making the information and statistics it produces widely accessible. In addition to print-ready (PDF) and online (HTML) reports and detailed data tables, the AIHW also produces infographics across many topic areas. The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) publishes products on its [website](#), along with a [schedule of releases](#) and a [weekly update on topic areas](#).

A range of public sector data produced by Australian Government departments is also available on [data.gov.au](#). Data.gov.au is a product of the Australian Government's Declaration of Open Government and enables access to data published by Australian Government departments and public institutions. Most of the data available is free of charge and can be visualised using the in-built mapping tools. Individuals and organisations are encouraged to use the data on this site for research, study or applications that add value to the global community. In addition to open datasets, data.gov.au includes information about unpublished public sector data and data available for purchase.

Access to ABS statistics

ABS official statistics, including revisions, are made available at a pre-advertised date and time to build and maintain trust in Australia's official statistical system, which is particularly important for market sensitive information released by the ABS. Users, particularly governments and the financial market, trust the ABS to meet these dates and time so they can plan accordingly and have trust in the integrity of ABS data.



The ABS prepares a range of information on upcoming statistical releases, including:

- the Treasurer's release advice, which is prepared monthly to inform the Treasurer and the Department of Treasury of the release of publications of interest. This contains a list of products and their release date in the next six-week period, and a list of the main economic indicators (MEIs) and their release date in the next six-month period;
- main economic indicator (MEI) release advice, which is prepared and published monthly and details proposed MEI releases for the following six months;
- daily release advice, which lists releases for the current day and those proposed for the following week;
- releases for the current day on the ABS home page. If appropriate, this notification will be accompanied by a headline;
- electronic notification of releases, which is a service, free of charge, advertised on and accessible from the ABS website; and
- advertisement of future issues of regular monthly and quarterly publications, including release dates for issues to be released in the next six months.

A vast array of ABS microdata (also known as unit record data) is available for statistical and research purposes, upon application, and in a manner which upholds the legislated requirement to protect secrecy. Access is via a range of mechanisms including CD-ROMs, a virtual DataLab analysis environment, products such as TableBuilder and two-way staff secondments. The ABS is working with other Australian Government agencies, including the Department of Social Services, to include non-ABS datasets in TableBuilder.

The ABS has an online product called ABS.Stat that presents data in a searchable, flexible and dynamic way. ABS.Stat provides data in a machine-readable format using the Statistical Data and Metadata Standard (SDMX) allowing machine-to-machine mechanisms for accessing and sharing ABS data. By 2019, ABS data and metadata will be instantly available upon release and updated in customer environments via an automated machine-to-machine access channel, without the need for any human intervention.

The ABS has manuals and clear corporate guidelines for the publication of official statistics. This guides the preparation of statistical outputs. ABS publications include explanatory information that is designed to enhance the use of official statistics and to avoid their misuse and misinterpretation.

Information on the websites of Australian statistical authorities is presented in English. The [National Translating and Interpreting Service](#) is available for people who speak languages other than English.

ABS services for the hearing and speech impaired can be accessed via the [National Relay Service](#). The ABS is a member of the [Australian Network on Disability](#), and the [Diversity Council](#). The ABS works hard to achieve [Web Content Accessibility Guidelines](#) accessibility requirements, which include standards about colour, contrast and animated text or images. This standard is mandated by the [Disability Discrimination Act 1992](#).

Metadata, standards and classifications

There is a range of information available about the importance and use of metadata in official statistics. The [ABS website](#) and [AIHW website](#) both provide information on metadata, and the



National Statistical Service website provided information and guidelines about metadata. Publications of official statistics include statements regarding data quality and methodology. ABARES makes a range of methodological information available to support the interpretation of statistics, such as the information available for [farm surveys](#). Every ABS publication contains explanatory notes that outline quality information and methodological approaches used, including information indicating the size of sampling and non-sampling errors. The explanatory information also notes where alternative data sources such as administrative data sources have been used.

In order to promote the use of standard statistical concepts and definitions, the ABS has a comprehensive range of [classifications](#), [standards](#), and [conceptual information](#) available on its website. Information about the standard geographical framework, the [Australian Statistical Geography Standard](#), and how this relates to other geographical frameworks is also available on the [ABS website](#). The ABS has also developed the [Statistical Spatial Framework](#), which provides Australian statistical producers with a common approach to connecting people-centric information to a location. The ABS is regularly at the forefront of new statistical standards to meet growing global expectations around relevance. Domestically, the ABS's statistical standards are widely used.

The [Metadata Online Registry](#) (METeOR) is Australia's repository for national data standards in the health, community services, housing assistance, homelessness and early childhood sectors. METeOR is administered by the AIHW. The AIHW offers training in metadata concepts and development. Various forms of METeOR training can be tailored to meet organisational needs (for example, for general users, data developers and registrars).

The AIHW also offers a metadata support service for metadata developed or revised by a registration authority. For example, the AIHW offers a review service that ensures metadata is constructed correctly, is reusable and accurately describes the underlying data.

Clarifying and communicating changes to statistical information

It is ABS policy that remedial action must be taken when an error or mistake is discovered in a product. It is ABS policy to publish corrections when errors in a product that:

- misrepresent facts that the product is intended to express;
- give rise to the possibility that readers will misinterpret the product's content;
- risk damaging the ABS reputation for exercising the highest professional standards; or even when
- are cosmetic and do not affect the interpretation of data.

In the ABS, when errors are identified, each error must be given an error rating. Clear corporate policies are outlined for the treatments for handling errors based on the error rating.

ABS staff monitor [Hansard](#), the formal report of the proceedings of the Australian parliament and its committees, for references to ABS statistics. In cases where ABS statistics are referenced or interpreted incorrectly, this is noted and appropriate actions are taken. For example, in response to misinterpretation of labour force statistics, the ABS has contacted relevant parliamentarians to clarify and offered information sessions on correct interpretation of these statistics to parliamentary members. From time to time, where statistics are reported or interpreted incorrectly by commentators, the Australian Statistician may choose to highlight this directly in correspondence.



Cost of access to statistical information

Generally, official statistics within Australia are available free of charge. All ABS official statistics are publicly available and are predominantly free. The Australian Government enabled this free service through an investment in 2005 that recognised the public value of the service provided by the ABS.

The ABS is committed to open access to official statistics by all levels of governments, and the public generally. ABS dissemination objectives are for widespread dissemination of information and statistics, while recovering the efficient costs involved in providing products and services obtained for private benefit. The balancing of community service obligations and cost recovery principles underpins ABS dissemination and pricing policy. The ABS pricing policy follows the latest government guidelines on cost recovery by information agencies.

The ABS pricing policy is intended to serve three main purposes:

- relieving the general taxpayer of those elements of the cost of the statistical service which have a specific and identifiable value to particular users;
- enabling the demand for ABS products and services to be used as one indicator of how ABS resources should be used; and
- encouraging users to address their real needs for ABS statistical products.

Similarly, the AIHW provides a range of free statistical information on its website that governments, researchers and the community can use to promote discussion on and improve the delivery of health and welfare for Australians. The AIHW has a data on request service that enables users to request new data tables within one specified data collection at new and different levels of disaggregation using different or derived data items. Clear information is provided on the [AIHW website](#) about the process and costs of this service.

Microdata access

The ABS collects data from a range of sources including surveys, censuses and administrative collections. This data is used to create microdata files, which contain detailed information about individuals, businesses and other groups. Within a microdata file, each record or row of the dataset represents information relating to one person, household or business.

Access to ABS microdata is managed to protect privacy and confidentiality. Users need to apply and be approved by the ABS before accessing microdata. Microdata is released using methods and systems that protect the confidentiality of people, households, and businesses. More information about confidentiality is available on the ABS website, in the [ABS Confidentiality Series](#) and the publication '[How ABS keeps your information confidential](#)'.

At the time of this assessment, the ABS uses a trusted data access model under the [Five Safes Framework](#). By carefully assessing people, projects, settings, data and output, appropriate controls can be put in place to maximise the use of data while protecting privacy and confidentiality. The Five Safes Framework is already in use in the United Kingdom, New Zealand and the European Commission. See recommendation 4 for more information.



ABS microdata products are particularly valued by researchers across the public, private and research sectors. The ABS has an extensive array of infrastructure in place to meet research priorities. This includes an arrangement for free-of-charge access to academics working in universities covered by an agreement with the Australian Vice-Chancellors Committee and the ABS.

Microdata allows researchers to conduct in-depth analysis and research, informing decisions of importance to Australia. Some typical uses of microdata include production of papers, journal articles, books, PhD theses and microsimulation. The list of [published research using microdata](#) on the ABS website provides many examples of has been done. Users are encouraged to read the [Responsible Use of ABS Microdata Guide](#) to understand their obligations when using microdata.

Summary of assessment

	Item	Assessment
Recommendation	Recommendation 9: Ensure user-friendly data access and dissemination.	Fully compliant.
	Ensure user-friendly data access and dissemination, so that statistics are presented in a clear and understandable form, released in a suitable and convenient manner, including in machine-readable form ('open data'), can be found easily, and are available and accessible on an impartial basis with supporting metadata and guidance. This also entails a commitment to respond to major misinterpretations of data by users.	
Good Practice	9.1. Statistical information is available through different dissemination tools, including media channels, Internet, online database and paper publications and easily downloadable in different formats.	Fully compliant.
	9.2. A dissemination policy ensures the free dissemination of official statistics.	Fully compliant. Costs are associated with some complex or tailored data requests.
	9.3. In order to ensure equal access to national statistics for international users, English-language statistical information (data and metadata) is available on websites of National Statistical Authorities.	Fully compliant.
	9.4. A corporate strategy and appropriate guidelines are in place for the preparation of statistical publications (paper and electronic).	Fully compliant.
	9.5. A corporate database and glossaries promote the use of standard statistical concepts and definitions.	Fully compliant.
	9.6. Users are kept informed about the methodology of statistical processes including the use of administrative data (ECoP).	Fully compliant.
	9.7. Metadata are documented according to standardised metadata systems (ECoP).	Fully compliant.



	<p>9.8. A corporate strategy and appropriate guidelines are in place for the preparation and dissemination of metadata on concepts, scope, classifications, basis of recording, data sources, statistical techniques, differences from internationally accepted standards, annotation of good practices, geographical coverage, etc.</p>	Fully compliant.
	<p>9.9. Processes ensure that sampling and non-sampling errors are measured and systematically documented and that information is made available to users for all key statistical outputs.</p>	Fully compliant.
	<p>9.10. Internal guidelines are available in statistical agencies on responding to erroneous comments. These guidelines are well known by staff.</p>	Fully compliant.
	<p>9.11. Access to micro-data is allowed for research purposes and is subject to specific rules or protocols (ECOP).</p>	Fully compliant.
	<p>9.12. Where a pricing policy exists for specific services or custom-designed products, conditions of sale are clearly communicated.</p>	Fully compliant.
	<p>9.13. Educational material is developed with the aim to enhance the use of official statistics and to avoid their misuse and misinterpretation.</p>	Fully compliant.
	<p>9.14. Official statistics are released in machine-readable form ('open data') that encourage reuse and analyses.</p>	Fully compliant.



RECOMMENDATION 10

Establish responsibilities for co-ordination of statistical activities within the NSS.

To this end, Adherents should ensure that:

- i. the co-ordination of statistical activities among statistical producers is done through the use of standard concepts and classifications and avoids the duplication of effort;
- ii. responsibilities for such co-ordination function are clearly laid out and anchored in statistical legislation.

The Australian statistical system is formed of many components. This includes:

- the Australian Bureau of Statistics (ABS) as the national statistical office;
- a range of national statistical authorities (for example, the Australian Institute of Health and Welfare (AIHW) and the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES));
- government agencies producing official statistics (for example, the Bureau of Meteorology , the Department of Home Affairs and the Department of Social Services); and
- government agencies producing source data that contributes to official statistics (for example, state and territory registries of births, deaths and marriages).

The ABS is one player in the statistical system, albeit a lead player. The ABS supports a collaborative approach in order to fully realise the value of statistics and the potential of a dynamic data environment.

Legislated coordination roles

The ABS has a legislated responsibility to help address the issues arising from multiple official statistical producers, by coordinating the operations of official bodies in the collection, compilation and dissemination of statistics and related information ([Australian Bureau of Statistics Act 1975](#) – section 6 (1)(c)). This includes avoidance of duplication, attainment of comparability, data integration, and maximisation of data usage.

The [Australian Statistics Advisory Council](#) (ASAC) was established under the [Australian Bureau of Statistics Act 1975](#) (Section 18) to be the key advisory body to the Australian Statistician and the ABS's responsible minister. This includes advice on "the improvement, extension and co-ordination of statistical services provided for public purposes in Australia" (Section 18 (1)(a)).

National Statistical Service

In 2005, the ABS created the National Statistical Service (NSS) to help coordinate the production of statistics in government agencies and support the Australian statistical system. The NSS was created as a community of government agencies working to build a rich statistical picture in order to better inform Australia. The NSS encompassed all Australian official bodies involved in the production and



use of official statistics, including custodians of administrative datasets which contribute to official statistics.

The ABS initially created the NSS as a service to provide tools, knowledge and guidance to statistical producers and users in the Australian statistical system. Much of this was through the NSS website (for example, the data quality online tool, sample size calculator and the statistical spatial framework), but also through seminars and other events, such as the NatStats Conference.

The ABS shifted the focus of the NSS in the early 2010s from an information service to a vehicle for collaboration and partnership. This was primarily through data integration projects and initiatives such as [Essential Statistical Assets](#) (ESA) for Australia, as well as groups such as the [Australian Statistics Advisory Council](#), the Australian Government Statistics Forum and the State Statistical Forum.

The NSS has been formally retired by the ABS as other initiatives have taken its place in the broader Australian data landscape (e.g. the Data Integration Partnership for Australia, Office of the National Data Commissioner). The NSS website was decommissioned on 31 August 2018.

Essential Statistical Assets for Australia

The ESA for Australia initiative was a collaborative effort between the ABS and other organisations across Australian governments. The aim of the initiative was to allow for effective prioritisation of investment, focus and effort within the national statistical system, by identifying those essential statistical assets which are critical to decision-making in a complex and sometimes fragmented information environment across Australia.

The ESA initiative developed a [list of essential statistics](#), a [quality assessment](#) of those statistics and identification of [opportunities and barriers for statistical infrastructure](#). These activities enabled the Australian government, in partnership with state and territory governments, to pursue the following objectives:

1. more efficient use of government resources by identifying areas of duplication and underutilisation;
2. ensuring that the critically important information (statistics/data) are of sufficient quality; and
3. identification of critical information gaps, so that these can be addressed.

Standards and Classifications

A range of [standards](#), [classifications](#) and [metadata standards](#) are available for Australian official statistics producers to use in their collections. The ABS is regularly at the forefront of new statistical standards to meet growing global expectations around relevance, such as the 2030 Agenda for Sustainable Development. Domestically, the ABS's statistical standards are widely used. For example, the Department of Social Services have used the [Australian Statistical Geography Standard](#) (ASGS) 2011 to define service areas in their Streamlined Grant Agreements. The ABS also collaborates with the data community to develop and encourage adoption of important statistical standards. For example, the ABS has worked closely with ANZLIC – the Spatial Information Council (a peak intergovernmental spatial organisation) in the development of the [Foundational Spatial Data](#)



[Infrastructure](#) which aims to provide current, quality, authoritative and standardised foundational spatial data for Australia and New Zealand. The ABS was also an early adopter of the Australian Government Guidelines on the Recognition of Sex and Gender.

Coordination of the Australian data system

In recent years, data has become increasingly valued as a strategic asset of government, evidenced through statements such as the [Australian Government Public Data Policy Statement](#). This has led to coordination of the broader Australian data system by the Department of the Prime Minister and Cabinet, of which the national statistical system is a part. Coordination efforts have included initiatives such as:

- the [Data Integration Partnership for Australia](#);
- the [response to the inquiry into data availability and use](#);
- [data sharing and release reforms](#); and
- the introduction of a [National Data Commissioner](#).

The ABS is a key player in these initiatives, including through:

- creation and maintenance of data assets, particularly the [Multi-Agency Data Integration Project](#) (MADIP) data asset and the [Business Longitudinal Analysis Data Environment](#) (BLADE) data asset that support analysis;
- improving access to data and microdata assets through the ABS virtual DataLab;
- development of statistical and technical infrastructure, such as the development of location indexing methodologies, linking infrastructure, secure access facilities, and confidentialised tabular access;
- provision of technical expertise and advice, including advice on the feasibility of analytical projects and delivery of analytical data sets to analysts; and
- communication with the public to build trust in the Australian data system.

Many similar initiatives also exist in Australia's state and territory governments:

- data sharing legislation in [Victoria](#), [New South Wales](#), [South Australia](#) and [Queensland](#);
- whole-of-government data and digital strategies in [Victoria](#), [New South Wales](#), [Northern Territory](#), [Western Australia](#) and [Queensland](#); and
- data analytics centres in [Victoria](#), [New South Wales](#), [South Australia](#) and [Queensland](#).

The Australian government is working together to align priorities and share knowledge in this fast paced environment.



Summary of assessment

	Item	Assessment
Recommendation	<p>Recommendation 10: Establish responsibilities for co-ordination of statistical activities within the NSS.</p> <p>To this end, Adherents should ensure that:</p> <ol style="list-style-type: none"> i. the co-ordination of statistical activities among statistical producers is done through the use of standard concepts and classifications and avoids the duplication of effort; ii. responsibilities for such co-ordination function are clearly laid out and anchored in statistical legislation. 	<p>Substantially compliant.</p> <p>While there are some opportunities to improve coordination in the Australian statistical system, responsibilities for the co-ordination of the Australian Statistical System are laid out in the Census and Statistics Act 1905.</p>
Good Practice	<p>10.1. The role and responsibilities of all producers of statistics are clearly determined by law. A co-ordinator of the NSS, such as the NSO, is also designated by law.</p>	<p>Partially compliant.</p> <p>Complex statistical system not recognised by legislation.</p>
Good Practice	<p>10.2. The designated co-ordinator has responsibility to co-ordinate the statistical activities of official producers in the NSS and to represent the NSS as a whole. This concerns in particular the use of appropriate statistical concepts and procedures, the implementation of international standards and efforts to minimise duplications in data collection, production and dissemination of official statistics.</p>	<p>Substantially compliant.</p>
Good Practice	<p>10.3. Procedures, mechanisms, tools, guidelines, or agreements are in place to ensure effective co-ordination within the NSS. Procedures include:</p> <ul style="list-style-type: none"> • Establishment of a national statistics plan; • Co-ordinated data dissemination, e.g. through a single data portal; • Assistance with implementation of international standards and classification; and • Common quality management processes. 	<p>Substantially compliant.</p>
Good Practice	<p>10.4. Exchange of statistical information between statistical agencies is actively undertaken.</p>	<p>Fully compliant.</p>



RECOMMENDATION 11

Commit to international cooperation. To this end, Adherents should:

- i. encourage statistical producers to achieve common goals in statistics jointly with the statistical producers in other countries and with international organisations, with a view to developing internationally comparable statistics, to designing international standards and to exchanging information on good practice.**
- ii. provide the necessary data for the OECD's reporting system and analytical work, in compliance with international statistical standards as recognised by the OECD and preferably using the Statistical Data and Metadata eXchange method/standard in particular for domains with internationally agreed Data Structure Definitions (DSDs).**

The Australian Bureau of Statistics (ABS) is a key member of the international statistical community, contributing to international forums and sharing knowledge and expertise with other National Statistics Office (NSOs). Under the [Australian Bureau of Statistics Act 1975](#), one of the ABS's functions is 'to provide liaison between Australia, on the one hand, and other countries and international organisations, on the other hand, in relation to statistical matters' (section 6(f)).

The ABS's international engagement

International engagement is a fundamental function of the ABS in order to deliver high quality, relevant and comparable statistics. The ABS participates in key international statistics forums for a number of reasons:

- to offer its experience and expertise in support of developing and producing globally comparable high quality official statistics in line with the aspirations of the United Nations Fundamental Principles of Statistics and the requirements for measuring economies, societies, populations and the environment;
- to shape, influence and lead the development of international statistical standards;
- to support and engage with other NSOs to build a more reliable and useful global statistical picture;
- to learn and further develop ABS practices; and
- to remain abreast of and share international best practice.

The ABS is an active contributor to a range of international groups, including the United Nations Statistical Commission and the United Nations Conference of European Statisticians. At the time of this assessment the Australian Statistician is Vice Chair of the Bureau of the Organisation for Economic Co-operation and Development (OECD) Committee on Statistics and Statistical Policy.

The ABS actively participates in a large range of international subject matter specific fora, some examples being:



- the OECD Working Party on Financial Statistics;
- the Meeting of the Group of Experts on National Accounts;
- the International Conference of Labour Statisticians; and
- the World Health Organisation Family of International Classifications meeting.

The ABS is also a contributor to the United Nation’s High-Level Group for the Modernisation of Official Statistics to oversee and coordinate international work relating to standards-based modernisation.

The ABS has close and mature bilateral relationships with many NSOs (including Statistics New Zealand, Statistics Canada, and United Kingdom’s Office of National Statistics). The ABS also supports international visits from other NSOs to facilitate information sharing and exchange.

International access to ABS data

Most ABS data is accessible to other NSOs and international organisations through the ABS website. Analysts from international organisations can also access ABS data through customised requests or confidentialised unit record files. The ABS is committed to responding to international questionnaires.

Additionally, the ABS has an online product called [ABS.Stat](#) that presents data in a searchable, flexible and dynamic way. ABS.Stat provides data in a machine-processable format using the Statistical Data and Metadata Standard (SDMX) allowing machine-to-machine mechanisms for accessing and sharing ABS data, particularly to other NSO and international organisations. By 2019, ABS data and metadata will be instantly available upon release and updated in customer environments via an automated machine-to-machine access channel, without the need for any intervention.

Building international statistical capability

The ABS is funded by the Australian Department of Foreign Affairs and Trade (DFAT) to deliver initiatives under the aid program through bilateral arrangements with NSOs under DFAT’s regional economic governance initiatives. The ABS also partners with DFAT to support regional statistical capability development and institutional strengthening under the Australian Government’s foreign policy priorities and aid program, assisting to enhance economic governance, regional security and stability, improve institutions, promote prosperity and enhance accountability. At the time of this assessment, the ABS supports five long-term partnerships to provide technical assistance and statistical leadership support. These partnerships are with:

- Indonesia;
- Timor-Leste;
- Papua New Guinea;
- Fiji; and
- the Pacific region.

The Australian Statistician has signed a Memorandum of Understanding (MOU) with the counterpart Chief Statistician for most of these programs, which articulates the partnership principles, mutual obligations and the parameters of our engagement with each country. For example, Statistics



Indonesia and the ABS have had agreements in place for over 20 years and recently signed a [milestone five-year agreement](#) broadening the collaboration of statistical activities.

Summary of assessment

	Item	Assessment
Recommendation	<p>Recommendation 11: Commit to international cooperation.</p> <p>To this end, Adherents should:</p> <ul style="list-style-type: none"> i. encourage statistical producers to achieve common goals in statistics jointly with the statistical producers in other countries and with international organisations, with a view to developing internationally comparable statistics, to designing international standards and to exchanging information on good practice. ii. provide the necessary data for the OECD’s reporting system and analytical work, in compliance with international statistical standards as recognised by the OECD and preferably using the Statistical Data and Metadata eXchange method/standard in particular for domains with internationally agreed Data Structure Definitions (DSDs). 	Fully compliant.
Good Practice	11.1. National statisticians participate actively and regularly in international expert groups, conferences and workshops.	Fully compliant.
	11.2. National Statistical Authorities participate in joint projects with other countries to share development burden.	Fully compliant.
	11.3. Heads of NSOs or their staff chair international statistical bodies.	Fully compliant.
	11.4. National Statistical Authorities participate in the main international statistical fora to exchange on their statistical practices, to participate in research and conceptual work and to contribute actively to the definition and design of international norms and statistical standards.	Fully compliant.
	11.5. Access to micro-data by international organisations is explored as a means to reduce the burden of countries responding to questionnaires.	Fully compliant.
	11.6. National Statistical Authorities provide complete and timely answers to the questionnaires of international organisations.	Fully compliant.
	11.7. Producers of official statistics use modern statistical and IT tools, such as SDMX for the regular transmission of data and metadata to international organisations, notably the OECD.	Fully compliant.



RECOMMENDATION 12

Encourage exploring innovative methods as well as new and alternative data sources as inputs for official statistics, and in particular encourage statistical agencies to actively explore possibilities to use new data sources (including large datasets owned by the private sector), or to combine existing and new data sources as input for official statistics. At the same time, these opportunities are weighted against the limits of using modern information technologies and the need to maintain the quality of official statistics.

Alternative data sources in production of official statistics

There are new opportunities in the Australian statistical system to access and interrogate big data sets, increasing the potential to provide new insights into matters of importance. The Australian data landscape is becoming more complex, expectations of decision makers are growing, and the Australian Bureau of Statistics (ABS) (and other Australian statistical authorities) is being challenged to deliver the best possible statistical program in more efficient and innovative ways.

The [Australian Government Public Data Policy Statement](#) sets the expectation that Australian government entities will make use of existing data sources for public value. This includes sharing data across jurisdictional boundaries and working in partnership with private entities.

In 2014, the ABS developed a big data strategy. The vision of the ABS in relation to big data is to harness diverse sources of big data to create a richer, more dynamic and focused statistical picture of Australia for better informed decision-making by government, business, academia and the Australian public. This means that the ABS will seek, wherever possible, to augment or replace traditional data sources with a range of big data sources to reduce the cost and time to market of statistical products. It will also explore opportunities to use big data to produce new statistical solutions that meet emerging information needs.

Internationally, the ABS is one of the leading national statistical agencies considering how new types of big data produced in the public and private sector could be leveraged to produce official statistics. The ABS made significant contributions to the international statistical community on big data through chairing the [United Nations Global Working Group on Big Data](#), as well as one of its Task teams on the use of satellite imagery for the production of official statistics, during 2014 to 2017.

New sources of public and private sector data are regularly being assessed and investigated by the ABS for potential use to enhance statistical information, reduce costs and reduce respondent burden. Acquisition of this data is under ABS legislation, but generally the ABS will create a Memorandum of Understanding with the data custodian to acquire the data of interest. For more information, see recommendation 5.

Potential uses of big data recently investigated include:

- satellite imagery data (drawing on the work done by Geoscience Australia with the Australian Geoscience Data Cube) in the context of environmental and agriculture reporting;



- trialling use of GPS tracking for freight statistics; and
- trialling telecommunications data for service populations and other fly-in-fly-out populations.

Implementing new methods and technology

Both locally and internationally, the ABS is known for the high quality of its statistical outputs, and for being developers and early adopters of new statistical practice and supporting technologies. Recent examples include: the introduction of [web-based forms](#) for collection, the development of [TableBuilder](#) (a data tabulation service which confidentialises aggregate data at the point of delivery), the creation of a statistical [Census longitudinal dataset](#), and the ABS leadership in the development and adoption of the new international standard for a [System of Economic and Environmental Accounting](#).

One key example is the [use of transactions data](#) from supermarkets to enhance the Australian Consumer Price Index (CPI). Transactions (scanner) data refers to point-of-sale purchases from retailers and is currently used to compile approximately 25 per cent of the CPI weight. In 2017, the ABS implemented a [new methodology](#) for using transactions data in the CPI, based on findings from the international prices statistical community.

The ABS maintains an awareness of new statistical methods and implements these wherever possible. Some other examples of new and emerging methods include:

- identifying and matching group structures (such as families) in multiple data sets for improved data linking;
- editing of administrative data, where there are no established edit rules, using machine learning;
- detecting privacy breaking query sequences against tabular confidentialisation (TableBuilder) using machine learning;
- longitudinal data linking spine for social welfare and tax data, at the person level across multiple years;
- modelling of time series and detecting statistical impact of transitional effects using state space modelling;
- measurement of disclosure risk in confidentialisation methods using differential privacy; and
- entity-based integration of multiple data sets from diverse data sources using a knowledge graph framework.

Research

The ABS, through a dedicated unit of over 110 methodologists, and headed by the Chief Methodologist, conducts a range of research on new methods for producing official statistics. At the time of this assessment, initiatives include:

- development of methodologies to harness emerging data for new statistical solutions, such as estimation methods for combining big data with survey data, and graph-based and machine learning methods for combining and analysing complex multi-level data;



- development of new economic statistical products through the ABS Economics Research Hub, such as investigating alternative health output estimates for inclusion in annual national accounts, and the impact of globalisation on macroeconomic statistics; and
- research into ways third party data could be used to improve the Australian Census of Population and Housing.

The ABS is well connected to the research community. The ABS has connections with and is active in the Statistical Society of Australia, the Australian Mathematical Sciences Institute, and the Australian Research Council Centre of Excellence for Mathematical and Statistical Frontiers. The ABS enters into collaborations and contracts with Australian universities to further develop methodologies for use in official statistics, and exchanges methodological developments with other National Statistical Offices (NSOs). For more information, see recommendation 7.

The ABS is also well connected to other national statistical offices on methodologies, through the Chief Methodologist Network, which ABS currently chairs; and to international statistical organisations such as the International Statistical Institute, the International Association of Survey Statisticians, and the International Association of Official Statistics through attending their conferences and presenting statistical papers.

ABS Transformation

The ABS is currently implementing a wide reaching [transformation](#) agenda to enable the ABS to achieve its purpose and ensure that its systems, process and methods remain relevant and functional. The ABS's ambitious transformation agenda is arguably the most significant and comprehensive change in its history. The transformation is essential for the continued production of timely, relevant and quality statistical information required to inform decisions in a rapidly changing world.

Beginning in 2014-15, the ABS transformation is underpinned by an investment of \$257 (AUD) million to modernise infrastructure over five years through the [Statistical Business Transformation Program](#) (see recommendation 3 for more information). The Statistical Business Transformation Program is responsible for designing and developing the next generation of statistical business processes and supporting information infrastructure to provide a platform to reduce costs and burden on providers, bring together various datasets to develop new statistical products more rapidly, and make data available in a form which can be more easily used. The transformation program is focused on building capacity on six key areas: environment, strategy, governance, people, culture and infrastructure.

Making better use of existing data through data integration

The [Data Integration Partnership for Australia](#) (DIPA) is a whole-of-government initiative to make better use of existing public data. The aim of the DIPA initiative is to inform the development of emerging social, economic, and environmental policy priorities and improve the delivery of government services. The Australian Government has invested \$130.8 million (AUD) over three years (from 2017) to establish the DIPA initiative. A number of Australian Government agencies contribute data and policy analysis skills to the program, while others provide technical expertise



and infrastructure. The partnership enables statistics to be produced in a more streamlined and cost-effective manner, and improves our ability to analyse data.

Both the ABS and Australian Institute of Health and Welfare (AIHW) are key partners of the DIPA initiative, as accredited integrating authorities. Integrating authorities are organisations responsible for the sound conduct of the statistical data integration projects. Integration authorities are used for all Australian Government high risk integration projects. The ABS and AIHW have a long history of developing ways to use statistical data integration as a method for maximising the use of existing data sources to better inform decisions in important areas such as health, education, infrastructure and the economy.

The ABS, together with other agencies, had previously developed two core integrated assets that are now part of the DIPA initiative: the [Business Longitudinal Analytical Data Environment](#) (BLADE) and the [Multi-Agency Data Integration Project](#) (MADIP). BLADE combines business tax data and information from ABS surveys with data about the use of government programs, to provide a better understanding of Australian businesses and the economy. MADIP is a partnership among Australian government agencies to combine information on healthcare, education, government payments, personal income tax, and the Census of Population and Housing to create a comprehensive picture of Australia over time.

Collaborative efforts between organisations are commonplace in Australia and over 100 separate datasets have been used in linking projects, sourced from over 35 Australian government, state/territory government and non-government organisations. Data integration projects involving Australian Government data are publicly recorded on a project register and the outcomes of analysis of most projects are available on the [ABS website](#) and the [AIHW website](#).

The ABS and AIHW are well placed to undertake statistical data integration as they provide a safe and effective environment for acquiring, storing and linking data, and making statistics available to the community. In order to ensure that use of statistical data integration is aligned with community views about the collection, use and dissemination of statistics, the ABS has actively sought to understand community attitudes to data integration. In 2015 an [independent survey](#) showed that 100 per cent of informed users and 81 per cent of the general community trusted Australia's official statistical organisation. As an accredited Commonwealth Integrating Authority the ABS embraces the High Level Principles for Data Integration involving Commonwealth Data for Statistical and Research Purposes, and has been independently audited for compliance with the associated governance and implementation guidelines.

Spatial Statistics

The ABS recognised that better integration of geospatial and statistical information is a key challenge and responded by developing the [Statistical Spatial Framework](#). This framework provides Australia with a common approach to connecting people-centric (socio-economic) information to a location, and improves the accessibility and usability of this location-enabled information. The Statistical Spatial Framework is designed to have applicability in any organisation wanting to understand people, society and the economy in the context of place.



The Statistical Spatial Framework quickly gained recognition internationally and consequently the [United Nations Statistical Commission](#) and the [United Nations Committee of Experts on Global Geospatial Information Management](#) (UN-GGIM) each supported the development of a [Global Statistical Geospatial Framework](#). Both bodies agreed to the formation of the [United Nations Expert Group for the Integration of Statistical and Geospatial Information](#) (UN EG-ISGI) providing it with a mandate to develop a global framework, along with a complimentary mandate to develop and coordinate activities in the integration of statistical and geospatial information. Reflecting its leadership in this field, the ABS has been co-chair of the Expert Group since it was formed in 2013, and has continued to lead international developments and progress that has occurred in this area.

A Location Integration Capability (Loc-I) is currently being developed as part of the DIPA initiative. This will provide infrastructure to enable government agencies to geospatially integrate and analyse data reliably, effectively and efficiently across portfolios and information domains. The ABS is collaborating with a range of other government agencies to deliver this missing piece of infrastructure. The ABS has played a lead role in the development of the Loc-I concept and the project to produce the required infrastructure.



Summary of assessment

	Item	Assessment
Recommendation	Recommendation 12: Encourage exploring innovative methods as well as new and alternative data sources as inputs for official statistics, and in particular encourage statistical agencies to actively explore possibilities to use new data sources (including large datasets owned by the private sector), or to combine existing and new data sources as input for official statistics. At the same time, these opportunities are weighted against the limits of using modern information technologies and the need to maintain the quality of official statistics.	Fully compliant.
Good Practice	12.1. National Statistical Authorities actively encourage and undertake research on new sources and new methods for official statistics, including in the private sector and through combination of existing sources.	Fully compliant.
	12.2. National Statistical Authorities develop methodological work and IT structure to ensure the quality of official statistics when new and alternative data sources are used as input.	Fully compliant.
	12.3. An explicit policy is formulated towards the use of “Big Data” and private data that considers legal, technical and methodological implications.	Fully compliant.
	12.4. Implications for statistical infrastructure, statistical methods, and analytical tools are systematically assessed.	Fully compliant.
	12.5. There are explicit agreements between producers of official statistics and owners of private data; and legislation which regulate access to this information and deal with privacy issues.	Fully compliant. See Recommendation 5.
	12.6. National Statistical Authorities participate in the development of capabilities to process geospatial data	Fully compliant.



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