

**Australian Bureau of Statistics**  
**Submission to the Australian Parliament's Northern Australia Committee**  
**inquiry into the development of Northern Australia**

## **Executive Summary**

The Australian Parliament's Northern Australia Committee inquiry into the development of Northern Australia can be well informed by the use of data from the Australian Bureau of Statistics (ABS). The ABS collects and publishes a wide range of social, economic and environmental data. Northern Australia covers a vast and diverse landscape which includes some larger towns and many smaller communities. Most of Northern Australia is remote or very remote and this poses challenges for statistical collection and output. While much of the information collected by the ABS is at the national and state and territory level, some regional information is also available that could be compiled for Northern Australia and the regions within it.

In this submission, the availability of relevant regional data is examined in relation to:

- regional population
- regional economy
- regional industry
- regional labour force
- regional infrastructure and services

As well as ABS data, the submission includes reference to non-ABS data sources. The submission also discusses some significant data gaps and highlights a number of feasible options to improve regional ABS data, notwithstanding the remote nature of many Northern Australia regions. The remoteness of many smaller communities means that there are issues in the management of confidentiality in presenting statistical output.

The ABS is well positioned to lead the development of high quality regional output relevant to these needs. The ABS can provide support to users in the collation of regional data from available output and has particular expertise in dealing with statistical issues that arise for remote areas.

The ABS could also develop new or improved regional data sets to enhance future analyses. While some of the data development options discussed are in progress, others are outside of the scope of current ABS work program, however they offer significant potential to improve the suite of information available at the regional level.

## Introduction

The Australian Bureau of Statistics (ABS) is Australia's official national statistical agency, delivering a wide range of national, state and territory data, as well as providing some significant regional (sub-state) data sets that can be compiled for the regions of Northern Australia.

The role of the ABS is to assist and encourage informed decision-making, research and discussion within governments and the community by leading a high quality, objective and responsive national statistical service. Identifying and responding to the needs of government and the community is a high priority of the ABS. The Australian Parliament's Northern Australia Committee inquiry into the development of Northern Australia can be well informed by the use of ABS data. Having a good understanding of the current social, economic and environmental characteristics of Northern Australia will not only assist in formulating sound policy, but any recommendations actioned by Parliament as a result of this inquiry will be able to be reliably measured and their impact assessed by comparing data over time. The Bureau of Infrastructure and Regional Development (BITRE) Northern Australia Statistical Compendium ( [2009, 2011 update](#)) provides a base of factual information for Northern Australia sourced from a number of organisations including the ABS.

The ABS Agriculture Census and the Census of Population and Housing are rich sources of information for analysing the socio-economic characteristics of regions every 5 years. This submission provides a summary of ABS regional data sources. However, there are also gaps in regional data, which can be particularly challenging to meet for remote areas. The ABS is committed to the on-going provision of high quality data and recognises the strong user need for information at the regional level. The ABS is actively identifying other data sources that can be used for statistical purposes, and as [Essential Statistical Assets for Australia](#). These are large, comprehensive national data sets that have been collected for other purposes but also represent major potential for analysis of regions such as Northern Australia.

This submission addresses some key data priorities important for informing the development of a region:

- regional population
- regional economy
- regional industry
- regional labour force
- regional infrastructure and services

The ABS continues to explore new data opportunities and how they can be used to provide more detailed regional information on the above themes. However, while continuous improvement is being made in some areas, the implementation of significant new regional data from these sources is outside the scope of the current ABS work program.

## Regional Population

Understanding the characteristics of the population in Northern Australia is important in developing policies for the region. The ABS produces essential annual [population estimates](#) for regions of Australia. However, increasingly governments and local communities are seeking more detailed information on the population that use infrastructure and services in regions including 'fly-in, fly-out/drive-in, drive-out' workers, tourists, seasonal workers and other temporary residents. For this, different population measures are needed, such as service population estimates, information about commuting practices and regular estimates of migration between regions. This appears to be particularly important for remote areas of Australia, where a mobile workforce is more commonly used to support both industry development and service provision. These data needs were highlighted in the recent [House of Representatives Standing Committee on Regional Australia inquiry into the use of fly-in, fly-out workforce practices in regional Australia](#) and the [Productivity Commission inquiry into Geographic Labour Mobility](#). The ABS recognises there are data gaps in these areas and has commenced projects to consider how these gaps could be addressed.

The ABS currently uses administrative data sets (e.g. Medicare data and electoral roll information) to support production of regional population estimates on an annual basis. These sources can also be used to assess regional population flows and produce inter-regional migration estimates and ABS is currently scoping the potential to produce these estimates. ABS could also investigate the feasibility for production of regional service population estimates (e.g. temporary residents, day populations, tourism populations) utilising a range of sources.

## Regional Economy

Regional economic data are used by governments, businesses and other service providers to inform a range of decisions with economic, social, environmental and commercial objectives and there is a high demand to improve such information. ABS produces estimates of Gross State Product, but underlying data sets are currently insufficient for ABS to produce high quality estimates of Gross Regional Product for sub-state regions of Australia. Nevertheless, a range of regional economic data and analysis can inform decision-making in policy areas such as infrastructure, housing, transport, social services, employment and business administration. The ABS [National Regional Profile](#) presents a range of ABS and non-ABS economic data for regions, however, many regional data gaps remain.

The ABS has commenced a pilot project to address the demand for improved regional economic data and provide guidance on its applications. The ABS Regional Economic Data Directions (REDD) project aims to produce a data development plan that will highlight new and emerging opportunities and initiatives to improve the availability and

quality of regional economic data, primarily through using administrative data sets, such as taxation data.

There are a number of emerging opportunities to enhance regional economic data, including:

- The [Australian Business Register](#) is currently undertaking a major project to geocode business locations for every place where an entity conducts an operation. This project has potential to be utilised by the ABS to provide regional data. Subject to feasibility and confidentiality restrictions, it may be possible to attribute the business activity of large multi-location businesses to a region, thus overcoming a significant hurdle in the production of regional outputs.
- The ABS has recognised the potential of a longitudinal Linked Employer Employee Dataset (LEED) through integrating Australian Taxation Office data from personal income tax returns, employer payment summaries and employer tax returns. Such a data set could significantly enhance the production of regional economic outputs.
- Land Account - The ABS is progressively producing Land Accounts for each State and Territory, as well as specific environmental regions. The Land Account is part of a set of integrated environmental-economic accounts, and is a method of integrating environmental data with economic and social data. The [Great Barrier Reef Region](#) was the first to be produced. Land Accounts have also been produced for Victoria and Queensland. Information from a number of Commonwealth and State Government departments, as well as the ABS, are used in compiling the Land Accounts. The ABS could produce a Land Account for Northern Australia, and for regions within it.
- The ABS is beginning to explore the potential to utilise transactional data to produce official statistics. Examples of "transactions" are the purchase of products (e.g. sales transactions), the use of services (e.g. visits to a doctor), or communications transactions (e.g. phone calls, Internet downloads). Some transactional data sets may provide detailed information about the location of the transactions and hence these data sets are a possible source of regional outputs. For example, transactional data sets on purchase of goods may be used to report on regional prices.

The ABS is planning to produce a series of guides to provide information about economic indicators which can be applied to regions, and to explain data sources and data quality issues. The ABS is engaging with a range of clients using regional economic data to assess potential future directions.

## Regional Industry

Northern Australia is a vast area with different industries dominant in different regions within Northern Australia - mining in the Pilbara and North West Queensland, agriculture in the northern regions of Western Australia, Northern Territory and Queensland and tourism in Darwin, Kakadu and Alice Springs; tropical north Queensland and Whitsunday; and north-west Western Australia. (BITRE, 2009). The performance of these and emerging industries are fundamental to the development of Northern Australia. Governments, businesses and communities need regional industry data that can be used to inform their decision making.

The ABS [Agricultural Census](#), which is conducted every five years, provides detailed information on the Australian agricultural sector at the regional level. However, it does not meet all the data needs for this sector. The ABS and Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES) have commenced the [National Agricultural Statistics Review \(NASR\)](#) project. This is a joint project to consider all aspects of the Australian agricultural statistical information and the ability to inform decision making. Organisations and individuals have been invited to make a submission.

The ABS produces a [Tourism Satellite Account](#) which presents estimates of the direct contribution of the tourism industry to the Australian economy, with information available at the national level. The annual [Survey of Tourist Accommodation](#) provides information on accommodation establishments with 15 or more rooms for each state and territory and tourist regions within these. Information includes takings, occupancy rates, bed spaces.

The [Bureau of Resources and Energy Economic](#) produces national information and forecasts on production, exports and values of major resources and energy commodities. State and territory resource departments also collect and produce information about the resource and energy sectors in their state.

The ABS produces [Counts of Australian Businesses, including Entries and Exits](#). This output presents counts of businesses, including rates of business entries and exits, and rates of business survival at detailed geographical levels. Detailed counts are presented by industry, region, type of legal organisation, institutional sector, employment size and annual turnover. While this information can be used to indicate the composition of businesses in a region, it only provides partial coverage of the businesses as multi-location businesses are currently attributed to one region - the 'head office' address. The work on geocoding the Australian Business Register has the potential to improve the availability of regional industry information.

## Regional Labour Force

Businesses that operate in remote areas of Australia can face significant challenges in recruiting and retaining skilled labour. There is a need to understand the skills and employment patterns of the people who live in regional communities, as well as the increasingly mobile labour force who work in those regions.

Regional labour statistics are needed by regional businesses and communities. The recent draft report from the [Productivity Commission inquiry into Geographic Labour Mobility](#) analyses these issues. The ABS has prepared a public response to this report which provides advice on regional labour data availability. In short, aside from ABS Census five yearly data, the coverage of regional labour force statistics are limited, particularly for the larger remote areas of Northern Australia.

The main labour supply collection is the ABS monthly [Labour Force Survey](#) (LFS). From mid-February 2014 regional labour force data will be available from the ABS at Statistical Area Level 4 (SA4) and backcast to 1998. SA4s are geographic regions designed to reflect labour market regions. While this will provide some regional data, as LFS data are compiled from a person's SA4 region of usual residence, this data will not reflect the entire labour supply being utilised in a region since some SA4 regions will source labour from residents outside the region. The ABS also collects information about other aspects of people's employment arrangements, including casual work, contractors and aspects of non-standard employment arrangements. This information will also be available for SA4s and can help present a picture of the nature of work in regions. However, in remote areas of Australia one SA4 can cover a very large region which may present challenges for analysing variation within Northern Australia.

While there are a number of indicators of labour demand through job vacancies and job advertisements, in addition to the employer based ABS [Job Vacancy Survey](#), the depth of information available for regions is limited. The ABS is about to undertake an assessment of the information needs for labour statistics that are best provided through business surveys that are targeted at the employees of the business. This assessment is likely to further highlight the requirement for labour demand data at the regional level.

Employers and employees are using long-distance commuting and teleworking practices, particularly in regional areas. There are a number of LFS Supplementary Survey collections which can provide relevant information about labour mobility. However, there are some limitations with data from household surveys, for example the sample size may not support detailed information about commuting patterns, such as which regions people move from or to.

## Regional Infrastructure and Services

Fundamental to the development of a region is the ability for businesses and communities to access goods and services, as well as access to markets for the goods produced in the region. Northern Australia faces a number of infrastructure and service challenges. The majority of Northern Australia is classed as 'very remote' and there are no areas classified as major cities or inner regional areas. The road network of Northern Australia consists of largely unsealed roads and smaller lengths of sealed principal and secondary road. The availability of the Internet and the proportion of health workers (per 100,000 population) was lower than Australia as a whole ([BITRE 2009](#)).

Governments provide significant investment in infrastructure and services. The ABS provides information relevant to government expenditure on infrastructure and services through its [Government Finance Statistics](#). This includes information on expenditure by *purpose* (e.g. Education, Health, Housing and community amenities, Recreation and culture, Transport and communications). This information is available at the national, state and territory level. The ABS has not explored the potential to provide regional government finance information, as the data is currently provided with limited geographic detail.

A range of data sets are used to provide information on the supply and/or use of government services and infrastructure. For example, relevant information on transport and infrastructure is regularly compiled by the [Bureau of Infrastructure, Transport and Regional Economics](#). The ABS contributes transport data from a [Survey of Motor Vehicle Use](#) and a [Motor Vehicle Census](#), and is currently improving data on Freight Movements. Relevant information on service use and access are compiled by the Productivity Commission and published in the annual [Report on Government Services](#), and the ABS also contributes data to this report. Through its consultation on Essential Statistical Assets for Australia, the ABS has identified that regional information on [access to essential services](#) is a data gap and is undertaking an initial scoping study to further assess needs and opportunities in this area.

Many government programs allocate funding on the basis of need in relation to levels of social isolation, or remoteness, and levels of relative advantage or disadvantage. Funding decisions are routinely made by governments based on the ABS measures of Remoteness and/or using the ABS [Socio-Economic Index For Areas](#) (SEIFA). However, clients are beginning to require more sophisticated measures of service access and disadvantage for small areas, which are designed for the particular services they provide.

## **Conclusion**

Northern Australia is a vast area with many remote communities, and this poses challenges for statistical collation and output. However, ABS can provide relevant expertise about the use of currently available data for Northern Australia and its' regions. ABS is seeking to continuously improve statistics to meet high priority data needs where feasible, and there are some emerging opportunities to harness administrative data sources to improve regional outputs in future.