

APPENDIX A

Data Description

Population estimates are drawn from the Census, which for the commonwealth commenced in 1911—previous Censuses were conducted within states⁵⁰. A Census provides both a snapshot and contributes to a time series of population change in settlements, revealing whether communities are growing or declining. It also provides an indication of long-term trends in population movements influencing the spatial nature of Australian rural and urban locations.

However, as would be expected, the definitions and methods of collection have changed over time. Of particular note for this study are the changes in the population counts for Indigenous persons and changes in the definition of urban settlements.

First, both the 1911 and 1961 Censuses separate population counts for Indigenous persons from the localities' population estimates. Indigenous persons were counted but on a very limited basis⁵¹. This results in an undercount in both the population estimates and the distribution of settlements. The most obvious impact was in the Northern Territory, and northern Western Australia and Queensland population estimates and its distribution of settlements. For example, numerous localities in the Northern Territory were not included in the Census listing.

Second is the changing definition of a locality impacting on population estimates. The population estimates in 1911 were based on self-identification of residents as such no clear administrative boundary for localities were established. In 1961, population and dwellings of localities were based on twenty or more dwelling or fifty or more persons. However, as in 1911, clearly defined boundaries of towns and localities were generally unavailable. As such, dwellings stated to be within the generally accepted limits of a town or locality (which may cover a wide area) are included in the count. Locations beyond the limits of a town with no other recognised name were recorded separately as being 'near' the appropriate town.

In contrast, the 2006 Census of Population and Housing has a classification called Urban Centres and Localities (UCLs), which have clearly defined boundaries. Population clusters of over 1000 persons are classed as urban and localities are locations with populations between 200 and 999 persons. UCLs are subject to review at each Census with an element of subjective considerations into defining the location's boundary. For example, some rural areas can be included to ensure that the boundary encompasses all urban areas. The stricter definition applied by the Australian Bureau of Statistics in 2006 is reflected in the number of observations listed between the 1911, 1961 and 2006 Censuses (see Table A.1).

⁵⁰ The first Census was in New South Wales in the year 1828 with a population of 36 598 (ABS/CBCS 1911).

⁵¹ The 1911 Census stated that for Indigenous population counts are based on 'full-blooded Australian Aboriginals' and have been included if they 'were in the employ of whites at the date of the Census, or were living in a civilised or semi-civilised condition in the vicinity of settlements of whites at that date. An enumeration of Aboriginals living in a purely wild state was not undertaken' (ABS/CBCS 1911, p.2054).

Table A.1 Counts of Australian towns by population category in 1911, 1961 and 2006

| Town Population | 1911 | | 1961 | | 2006 | |
|-----------------|--------------|------------|--------------|------------|--------------|------------|
| | Number | % | Number | % | Number | % |
| 200–500 | 1567 | 63.7 | 1 350 | 58.8 | 569 | 33.3 |
| 500–1 000 | 482 | 19.6 | 439 | 19.1 | 425 | 24.9 |
| 1 000–2 000 | 244 | 9.9 | 205 | 8.9 | 294 | 17.2 |
| 2 000–4 000 | 105 | 4.3 | 138 | 6.0 | 183 | 10.7 |
| 4 000–8 000 | 42 | 1.7 | 84 | 3.7 | 106 | 6.2 |
| 8 000–16 000 | 13 | 0.5 | 51 | 2.2 | 62 | 3.6 |
| 16 000–32 000 | 6 | 0.2 | 18 | 0.8 | 38 | 2.2 |
| 32 000–64 000 | 1 | 0.0 | 9 | 0.4 | 13 | 0.8 |
| 64 000–128 000 | 0 | 0.0 | 0 | 0.0 | 9 | 0.5 |
| Over 128 000 | 0 | 0.0 | 1 | 0.0 | 9 | 0.5 |
| Total | 2 460 | 100 | 2 295 | 100 | 1 708 | 100 |

Note: Towns with a population under 200 have been removed for all three Censuses; as such the town counts are below those presented in Table B.2. In addition, the five largest capital cities are excluded from the three Census counts (Sydney, Melbourne, Brisbane, Perth and Adelaide).

Source: BITRE adaptation of ABS/CBCS Censuses 1911, 1961 and 2006.

To consider settlement change in Australia, two separate datasets were constructed for analysis.

- The population estimates for towns of over 200 were used from the three Census periods (1911, 1961 and 2006). For example, urban centres with population estimates of over 25 000 persons in 2006 are sourced from the Census counts for the locality for that year. These estimates can vary from the Australian Historical Population Statistics (2008) for other major centres publications. Two notable differences are for the cities of Bendigo and Newcastle.
 - » Bendigo's population estimate for 1911 was 17 833, while the Australian Historical Population Statistics (ABS 2008a) estimates the population at 36 127.
 - » Newcastle's population estimate for 1911 was 12 816, while the Australian Historical Population Statistics (ABS 2008a) estimates the population at 51 942.
- To analyse individual locations over time, a customised dataset was developed based on the following definitions:
 - » Localities with over 500 persons in any of the 1911, 1961 and 2006 Censuses were matched by name and local government area. This includes those with name changes such as Germanton changing its name to Holbrook during the First World War.
 - » Urban centres that have been created by merging two locations or a collection of towns have been estimated by combining these locations based on their Census years estimates for locations with over 500 persons. To illustrate:
 - » The towns of Kalgoorlie and Boulder in 1911 have been combined to form a population estimate to match the 2006 UCL Kalgoorlie-Boulder.

- » Central Coast was not classified in 1911. As such, towns located within the 2006 UCL area boundaries were used as population proxies for the UCL in 1911. For example, the towns of Gosford and Wyong form part of the 1911 Central Coast population estimate.
- » Population estimates for urban centres with population estimates of over 25 000 persons (Statistical Districts) in 2006 and capital cities are based on the Australian Historical Population Statistics (ABS 2008a).

To map 1911 localities, two methods were applied. First, both the 1961 and 2006 Censuses published locational coordinates for all locations as such 1911 matched locations were assigned the same coordinates. In addition, unmatched locations were assigned coordinates from the Geoscience historical metadata locational coordinates.