

# Preserving the Australian Census – 250 years of population data for Australia

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## INTRODUCTION

2020 will mark 250 years since the colonisation of Australia by James Cook. Australia has a long and detailed history of the collection of population data, since the departure of the First Fleet convicts in 1787 to Australia [1]. Censuses and musters have been undertaken in the Australian colonies since 1800 [2], and Australia's Commonwealth census data collection is now over 105 years old, with the completion of the 2016 Census [3]. Estimates of the Aboriginal population over this period also exist [4] and there are past and current efforts to estimate the pre-colonisation population and the effect of colonisation on the Aboriginal population [50]. These data constitute a critical reference data collection for Australia – for researchers and for the public at large.

A significant proportion of this population data is however essentially inaccessible. Even where the the data is findable, it is located in print collections within archives and libraries, or digitised but embedded in formats that render it nearly unusable for research. There is therefore a national need to transform census and population data from its current state into a usable resource for Australian research into the future.

To achieve this however requires establishing what data still exists, where it exists, and in what form. To this end, the Australian Data Archive, supported by funding from the “Transformative Data Collections” program run by the Australian Research Data Commons are undertaking the first stage of this work - the development a detailed audit, data register and user guide for the current state of 250 years of census and population data in Australia.

## CURRENT EFFORTS

While data from 1996 onwards is available from the Australian Bureau of Statistics, data prior to this date is difficult to locate and access. The Australian Data Archive has worked to make available major portions of the census, which have been deposited by the Australian Bureau of Statistics available for access:

- Data from 1981 to 1991 are currently being made available through the HASS-DEVL project [6]
- electronic versions of the census data tables (similar to the current “Community Profiles”) from the censuses from 1966 through until 1981 are available through ADA by request [7]
- transcribed versions of the statistical reports of the Australian colonies from 1838 through to federation in 1901 [8]

While these efforts have been beneficial, the current format and nature of this content has limitations for researchers. The transcribed colonial census data is embedded in HTML, meaning it cannot be easily used in research or by computer software for research or exploration without significant manual data entry by the user. Data from 1911-1961 is embedded in PDFs and print materials. For the census data from 1966 to 1981, there are no corresponding maps or geocode files of the geographic coverage of these censuses, limiting the usefulness of the data for informing spatially-enabled research or policy. Access to data from 1981-1991 (currently being undertaken through the HASS-DEVL project) has needed significant processing by ADA and AURIN, including data processing, file format changes and creation of documentation.

These data are also only part of the total population data for Australia. Other sources include population registers, birth, mortality and other vital statistics records, and related collections such as immigration statistics. There is therefore a need for developing a detailed audit and register of census and population data in Australia: what is available, it's format and status, where is it located, and how it might be made available, in order to make this major data resource FAIR and truly accessible for the Australian society.

## FUTURE REQUIREMENTS

A preliminary analysis of the state of Australian census data suggests that the data can be classified into a series of distinct periods (generally associated with computing capabilities of the ABS at the time the census was collected). These are presented in Table 1.

**Table 1: Existing Census Data – 1834 – Present**

Year(s)	Geography	Base unit	Census tables	Data provider	Census sample file
2011-present	ASGS	Mesh block	Community profiles; TableBuilder	ABS	ACLD Census sample file (1%, 5%)
1996-2006	ASGC	Census collection district (CCD)	CDATA; Community profiles	ABS	2006: 1%, 5%, 1996-2001: 1%
1991	ASGC	Census collection district (CCD)	CDATA; Community profiles	ADA	1% only
1986	ASGC	Census collection district (CCD)	CDATA; SLA Summary files	ADA	1% only
<b>Pre-1986 censuses</b>					
Year(s)	Geography	Base unit	Census tables	Census sample file	Maps
1981	ASGC	Census collection district (CCD)	CD and LGA Summary files	1% only	Digital

1966-1976		Census collection district (CCD)	CD and LGA Summary files		Paper
1911-1961		Municipality	Statistical tables (PDF) – ABS		?
1834-1901		Municipality	Statistical tables (print, image) – ADA		?

The paper will also present the results of the ARDC project, including an overview of the two key outcomes of the project, based on a detailed audit of existing data:

- a) A census and population data user guide, for users of existing census data and those interested in locating potential sources. The guide will facilitate the Findability of existing data, and mechanisms for Accessibility.
- b) A census audit report and collection development plan for expanding census data collections into the future. This will outline the current content (including state and format) of census and other population content, and requirements for the long-term FAIR data support for census and vital statistics data for the Australian population.

## REFERENCES

1. Baxter, C. (ed.) *Musters and lists, New South Wales and Norfolk Island, 1800-1802*. Sydney : ABGR in association with the Society of Australian Genealogists, 1988. Available from: <https://trove.nla.gov.au/version/44515467>
2. <http://members.iinet.net.au/~perthdps/convicts/census.html>
3. Historical Censuses (Pre 1996). ABS Catalogue Numbers 2101.0 – 2115.0. Available from <https://www.abs.gov.au/AUSSTATS/abs@.nsf/ViewContent?readform&view=ProductsbyCatalogue&Action=Expand&Num=2.2>
4. Smith, L.R. *The aboriginal population of Australia*. Canberra : Australian National University Press. Available from: <https://trove.nla.gov.au/version/43729924>
5. Hunter, B & Carmody, J 2015, 'Estimating the Aboriginal Population in Early Colonial Australia: The Role of Chickenpox Reconsidered', *Australian Economic History Review*, vol. 55, no. 2, pp. 112-138.
6. <https://tinker.edu.au/>
7. <http://assda.anu.edu.au/census.html>
8. <http://hccda.ada.edu.au/>