

Australian Bureau of Statistics Data Linkage Program

What is the ABS doing?

For the purposes of this paper, we will focus on linkage projects involving Aboriginal and Torres Strait Islander data, information on other ABS data linkage activities is available for those interested. The Census Data Enhancement (CDE) program contains several projects that are either focussed on or of benefit to understanding Aboriginal and Torres Strait Islander peoples' outcomes. While the overall program is larger, the projects relevant to Aboriginal and Torres Strait Islander peoples follow:

- Aboriginal and Torres Strait Islander Mortality Study (the Mortality Study)
- Statistical Longitudinal Census Dataset (SLCD)
- Census with school enrolments (the Education study)

How are we doing it?

ABS is an Integrating Authority, along with AIHW, making us accredited to undertake high risk projects involving Commonwealth data for statistical and research purposes. Accreditation is by the Cross Portfolio Data Integration Oversight Board against the interim accreditation scheme.

The ABS CDE program is confirmed approximately a year before the Census but timing may vary. The CDE program is limited to a select group of data linkage activities.

Agreements with the various data custodians are made and these often take considerable time to facilitate. When linking with the Census, data linkage should occur within the timeframe that the Census Data Processing Centre is operational. The window for data linkage is relatively short as Census records are destroyed after processing (around 15 months after the Census is complete). Making name and address linkage impossible after this time. The Statistical Longitudinal Census Dataset uses probabilistic record linkage.

Extensive Privacy and Confidentiality protocols accompany the data linkage activities.

Why are we doing it?

Most commonly for ABS Aboriginal and Torres Strait Islander data linkage activities, the aim is to improve the quality of administrative data and/or understandings/research of Aboriginal and Torres Strait Islander peoples' outcomes.

ABS undertakes linkage to improve data quality, for example the inputs into the Aboriginal and Torres Strait Islander life tables. We are looking to expand this to address data gaps, efficient collection of information, undertake new analysis (eg. longitudinal)

The Census Data Enhancement project is a major project involving integrating unit record data from the Census of Population and Housing with other ABS and non-ABS datasets to create new datasets for statistical and research purposes. The project also adds value to data from the Census of Population and Housing by bringing it together with data from future Censuses.

What are the expected outcomes?

The CDE project delivers significant public benefits without compromising the privacy of individuals or the confidentiality of their data. The project facilitates improved information to support good government policy making, program evaluation and service delivery; and an improved and expanded range of official statistics.

For the Mortality Study, the outcome will be in the form of improving official statistics, in particular the continuation of reliable Aboriginal and Torres Strait Islander Life Expectancy Tables.

For the Education Study, being a quality study, the outcome will be whether linkage without name and address is reliable. The implications of this are however important for shaping future data linkage activities.

As discussed above, the SLCD analysis allows exploration of a range of characteristics for a large sample of linked Census records. ABS intends to release articles exploring different topics in 2014.

What plans do you have to implement these outcomes?

The CDE Indigenous mortality project provides an example of how we have used data linkage to directly input into our statistical outputs.

ABS intends to release analytical articles from the SLCD on a number of topics.

What would you like to see occur in this area in the future?

For the National Centre of Aboriginal and Torres Strait Islander Statistics (NCATSIS), data linkage is seen as a key way to improve the quality of existing statistical information but also research.

Administrative data and data linkage will support addressing data gaps, however improvements in administrative data quality are required before we can realise this. Linkage itself is a way to improve some of the under-coverage concerns, however we need to understand the statistical impact of the various algorithms.

Future ABS projects will again include the CDE, with the potential to expand the Aboriginal and Torres Strait Islander specific projects to include datasets such as birth registrations.

Potentially there are opportunities to link survey datasets with Census, and explore longitudinal changes, or provide additional data items for analysis. However, ABS will need to assess privacy policy implications for future data linkage activities, and ensure we follow appropriate steps required to provide for community support for future linkage activities.

The ABS has taking this forward through the Data Integration National Statistical Centre to ensure appropriate policies are considered and consistently applied.