

TIME SERIES

What impact does the change to the ASGS have on time series?

The transition to the Australian Statistical Geography Standard (ASGS) causes a break in time series of data stored on Census Collection Districts (CCD), Statistical Local Areas (SLA), Statistical Subdivisions (SSD), Statistical Divisions (SD) and Labour Force regions.

It also has an impact on data for 'capital cities'. In the Australian Standard Geographical Classification (ASGC), Capital City Statistical Divisions (CCSD) boundaries defined capital cities. There is no equivalent region to SD in the ASGS. However, the new ASGS regions have been designed specifically to cater for the concept of a capital city defined as a socio-economic region and these are called the Greater Capital City Statistical Areas (GCCSA).

The change to the ASGS has some impact on Remoteness Areas, Urban Centres and Localities, the Indigenous Region Structure, and Non-ABS Structures. The impact should not seriously affect comparability of data over time. However users undertaking detailed analysis of this data need to be aware of the change as a possible source of anomalous results.

While there is little impact on data held at the Local Government Area (LGA) level users undertaking detailed analysis of this data also need to be aware of the change as a possible source of anomalous results.

In what circumstances should I consider bridging a time series?

The custodians of each time series must consider two issues before they decide whether to attempt to bridge the changeover. These are:

- Will the resultant data be fit for purpose; and
- What are the costs and benefits of making the bridge?

The sub-issues to be considered under each heading will be very different for each time series depending on:

- The nature of the data;
- The purpose for which it is intended; and
- The relative ease of making the changeover.

If the result of the bridge is not fit for purpose, or the expense of bridging the changeover is greater than the benefit, then it is preferable to simply accept that past data is no longer comparable with the new and the two be treated separately.

How can the break between the ASGC and ASGS be bridged?

The answer to this question is complex and depends on the nature of the data and the geographic areas on which it is compiled. It is difficult to make generalisations, but there are three broad options:

- Recoding ;
- Coding Indexes; and
- Correspondences (also known as concordances).

These are discussed below in more detail.

What is recoding and how is it done?

Recoding involves reassigning the original data to the relevant areas of the ASGS and then re-aggregating to the new units. This is only possible where the address information or latitude and longitude of the original unit record data are available.

If latitudes and longitudes are available, it is possible to recode the units to any level of the ASGS using the digital boundaries and a Geographical Information System (GIS) such as MapInfo or ArcInfo.

If complete street addresses are available, it is possible to recode the units to any level of the ASGS using address coding software. Such software is available commercially. Many state governments also have this capability usually within their planning department.

What are coding indexes and how are they used?

When the full address is not available and only locality and postcode are available, it is possible to accurately recode statistical units to the Statistical Area Level 2 (SA2) level or above with a suburb and locality coding index or an Australia Post postcode coding index. Coding indexes are available free of charge by request from the ABS. For a full list of coding indexes available please view the **'Correspondences'** chapter of the ABS Statistical Geography web site: <http://www.abs.gov.au/geography>

What are correspondences and how are they used?

Correspondences can be used where a complete street address or latitude and longitude of the original collection units are not available. It involves mathematically reassigning the data from the old geography to the new.

Correspondences are based on assumptions (For example: that the data that is to be transformed is evenly distributed across the region on which it is held) and so the resulting data are less precise than complete recoding

Most correspondences are weighted by either population or area. Population weighted correspondences are most useful for social and demographic data. Area weighted correspondences are most useful for

agricultural and environmental data. Correspondences are more accurate where the regions on which the data was originally aggregated are smaller than the new regions.

What correspondences are available?

The ABS is making an extensive selection of commonly-used correspondences available for no charge from the ABS web site.

In addition, to assist users of CCD time series collections, the ABS is providing a correspondence of 2006 CCD to 2011 SA1s together with an index of fitness for purpose. Identified issues surrounding the use of correspondences are discussed in detail in the ABS publication [Information Paper: Converting Data to the Australian Statistical Geography Standard, 2011](#) (cat. no. 1216.0.55.004), release date 28/02/2012.

Please also refer to the **'Converting Data to the ASGS'** chapter on the ABS Statistical Geography web site through <http://www.abs.gov.au/geography> for further information on correspondences. A video of a seminar on the subject is also accessible on this web site.

Correspondences provided free by the ABS are under the 'Downloads' tab of the online [ABS publication Australian Statistical Geography Standard \(ASGS\): Correspondences, July 2011](#) (cat. no. 1270.0.55.006).

A list of free correspondences, coding indexes and hierarchy tables is available from the **'Correspondences'** chapter of the ABS Statistical Geography web site: <http://www.abs.gov.au/geography>

What other correspondences will be available?

The ABS currently has some capacity to produce customised ASGS related correspondences over a time frame of approximately 5 working days. These could be supplied if a strong enough business case were to be presented. The ABS would need to discuss with users the potential issues in the use of such correspondences in the specific circumstances of their use.

Email geography@abs.gov.au to request more specialised correspondences or those that are problematic in their application.

Please note: The ABS will not release correspondences it considers unfit for any reasonable purpose. The ABS will not release correspondences involving non ABS supported regions unless there is a strong business case for their supply.

Will the ABS recast any of its previous data on to the ASGS?

The ABS is planning to recast data from a number of critical collections. The ABS will use the original records and reallocate them to the new geography, so the time series can be accurately calculated.

Those collections include:

- ERP - yearly Estimated Resident Population data will be released on SA2s and LGAs backcast to 2001; and
- Census Time Series data at SA2, SA3, SA4, SLA and LGA level will be released for 2001-2006-2011. Additionally, the 2011 Census data will be released on both the ASGS and on the 2011 ASGC at SLA level.

How will ABS publications be impacted?

A summary of the ABS publications that will be impacted by the transition from the ASGC to the ASGS is available from the 'ASGS Implementation Schedule for ABS Publications' chapter of the ABS Statistical Geography web site: <http://www.abs.gov.au/geography>

There are plans for several statistical publications to release data for both ASGC and ASGS for varying periods of time after the changeover. For each publication a table summarises how and when the publication will be output on the ASGC as well as the ASGS. The table also indicates the availability of any time series data that will be provided as well as resources where further information will be available.

Where can I get further information?

More information on the ASGS and ABS Statistical Geography can be found by visiting the ABS web site: <http://www.abs.gov.au/geography>

Any questions or comment can be emailed to geography@abs.gov.au