Australian Government

Department of Infrastructure, Transport, Regional Development, Communications and the Arts

Bureau of Communications, Arts and Regional Research

Understanding statistical geography

Statistical geography

Statistical geographies define spatial boundaries for the purpose of producing, analysing and publishing regional data to inform decision making. To choose the most appropriate geography, data users need to understand which geography most accurately represents their region/s of interest, and whether data is available at that scale.

Key ABS boundaries

The Australian Bureau of Statistics (ABS) produces spatial data following its Australian Statistical Geography Standard (ASGS). This standard is updated every five years – and was last updated in 2021.

The ASGS defines seven levels of increasingly detailed statistical areas that show where people and communities live.

The smallest area is known as a Mesh Block, which typically includes around 30-60 dwellings. There are 368,286 Mesh Blocks across Australia.

- The Mesh Blocks are then grouped together into four increasingly large statistical areas (SA1-SA4).
- The final two levels are states/territories and the whole of Australia.

Data availability varies according to geographical scale and the size of the survey. Every five years, Census data is collected from individual households across the entire population. At other times, surveys are undertaken using samples of the population, so data availability at smaller spatial levels can be limited.

Other widely used boundaries

The ABS also provides data across regions known as Non-ABS geographical structures. These are important geographies for regional analysis and include Local Government Areas (LGAs), Tourism Regions and postcodes. These boundaries are not defined by the ABS, and are close approximations of the administrative boundaries.

Functional regions – that is, geographical areas based on a specific function – can also be constructed to examine an activity spatially. For example, work-commuting patterns can be used to assess the economic scope of a region such as Albury and Wodonga. While they are administratively two distinct regions, they share a labour market as people freely move between them. In this way they can be considered to both be within a single functional labour market region.
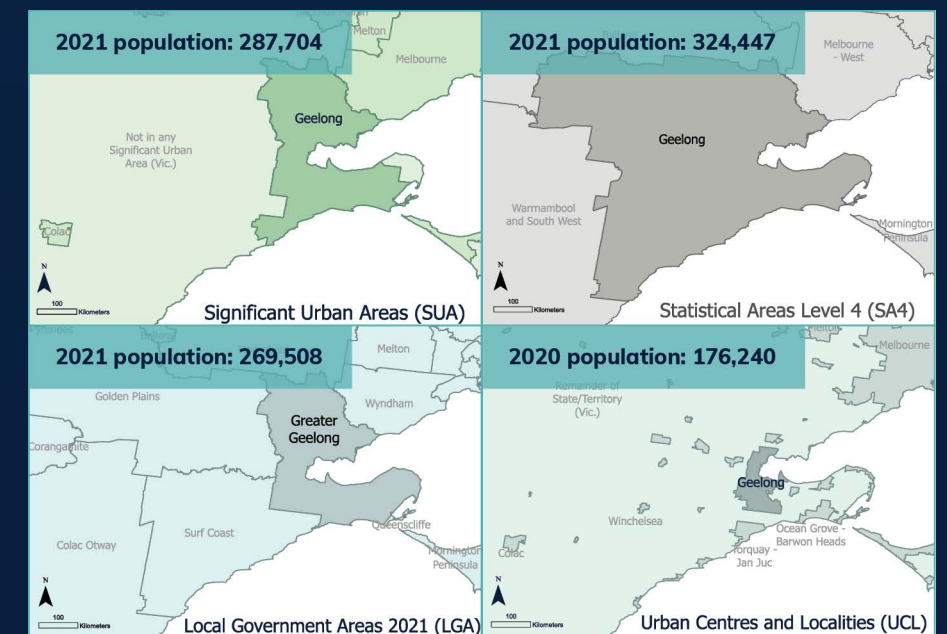
Illustration of a region

The maps on the right show four different geography types for Geelong. Boundaries can have the same name but represent very different geographical areas, as reflected by the maps and population figures below.

As such, when undertaking analysis, one of the first questions to ask is: What is the most appropriate geographic boundary to use that captures the region/s I want to reflect?

Other considerations include: the concept underpinning the geography (e.g. urban areas, remoteness), the data available at that scale, the ability to compare with other regions on the same geography, and practical issues relating to how people understand their local area (e.g. most people are familiar with their LGA).

When considering data describing the area, it is worth asking: Which regional definition does the data refer to? This will help ensure that data are presented on a consistent basis, as definitions can vary considerably.

2021 population: 287,704 — Significant Urban Areas (SUA)

2021 population: 324,447 — Statistical Areas Level 4 (SA4)

2021 population: 269,508 — Local Government Areas 2021 (LGA)

2020 population: 176,240 — Urban Centres and Localities (UCL)

Common geographies

Geography	Definition	Number of regions	Map
Statistical Areas Level 4 (SA4s)	SA4s are part of the main ASGS structure. SA4s (broadly) represent labour markets. They generally have a population range of 100,000 to 500,000.	89 (ASGS 2016) (ASGS 2021)	
Statistical Areas Level 3 (SA3s)	SA3s comprise SA2s that have similar regional characteristics. They generally have a population range of 30,000 to 130,000.	340 (ASGS 2016) (ASGS 2021)	

Geography	Definition	Number of regions	Map
Statistical Areas Level 2 (SA2s)	SA2s represent communities that interact together socially and economically. SA2s generally have a population range of 3,000 to 25,000. SA2s can be used to create other geographies such as Working Zones and Significant Urban Areas.	2,292 (ASGS 2016) 2,454 (ASGS 2021)	
Local Government Areas (LGAs)	LGAs reflect gazetted local government boundaries as defined by each state and territory.	547 (ASGS 2021)	

Common geographies

Geography	Definition	Number of regions	Map
Greater Capital City Statistical Areas (GCCSAs)	The GCCSA geography represents the functional extent of each of the 8 Capital Cities, and Rest of State regions for each state and territory.	16 (ASGS 2016) (ASGS 2021)	
Significant Urban Areas (SUAs)	SUAs include urban areas with a population of 10,000 people or more. SUAs are based on an aggregation of SA2s.	110 (ASGS 2016)	

Geography	Definition	Number of regions	Map
Urban Centres and Localities (UCLs)	UCLs are tightly bounded areas defined as urban (town or city of at least 1,000 people), and localities (200 to around 1,000 people).	1,835 (ASGS 2016)	
Remoteness Areas (RAs)	Remoteness Areas divide Australia into five classes of remoteness according to relative access to services.	5 (ASGS 2016)	

Note 1: Boundaries are regularly updated to reflect changes in population. As such, it is important to know which version (year) is being used. Data from different years may not be comparable due to boundary changes. Most boundaries are updated every five years, but LGAs are updated annually.

Note 2: Count of regions excludes non-spatial special purpose codes designed to account for populations which cannot be assigned to any physical geographical area such as people in transit or who have no fixed address.

Important link: ABS Maps is an interactive tool that allows the user to choose two geographic boundaries and compare them on a map. This is a quick and easy way to explore and understand different boundaries for your region/s of interest. ABS Maps | Australian Bureau of Statistics.