





The 2016 Working zones have been updated to reflect the 2021 Australian Statistical Geography Standard (ASGS) Statistical Area Level 2 (SA2) boundaries.

The Working zones (WZs) statistical geography describes regions that reflect commuting patterns of Australian workers.

Many geographic boundaries consider human activity based on administrative areas, such as state/territory borders or Local Government Areas (LGAs). WZs reflect actual commuting patterns, ie where people live and where they work. This can better represent the connections between different suburbs, towns and regions, and be used to examine local labour markets.

Previously, WZs were built up from the Australian Bureau of Statistics (ABS) 2016 Statistical Area Level 2 (SA2) boundaries, from the 2016 Australian Statistical Geography Standard (ASGS). This update changes the underlying geography to the current 2021 SA2 boundaries. Some WZ names have also been changed.

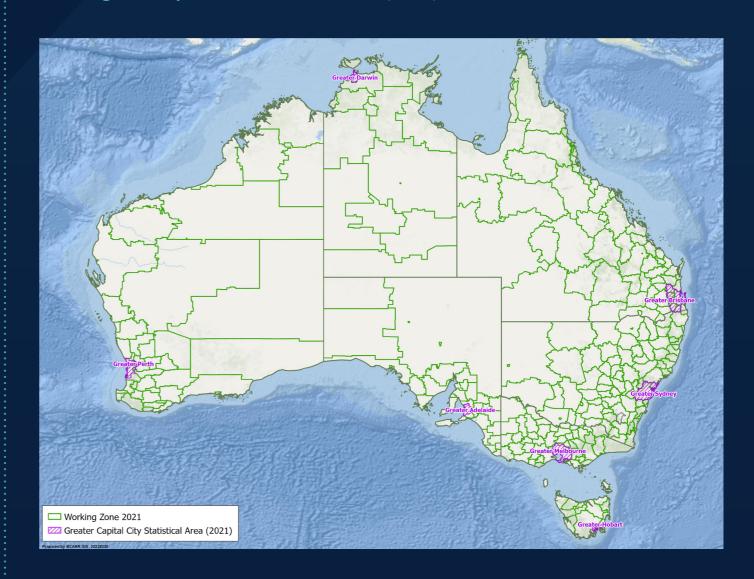
In practice, the only notable change to WZ boundaries for this update is a slight shift in the Gold Coast-Tweed Heads and surrounds WZ boundary into the Brisbane and surrounds WZ.

This update does not revisit the underlying commuting flows, which remain from the 2016 Census of Population and Housing. The flows from the 2021 Census are likely to have been impacted by COVID-19 lockdowns.

There are 313 WZs across Australia. varying in terms of employment, population, industry and size. WZs encompass all of Australia, from capital cities to remote areas. While most WZs (59 per cent) are comprised of a single SA2, some heavily populated WZs include as many as 100 or more SA2s. For example, the Melbourne and surrounds WZ is made up of 366 SA2s and extends beyond the **Greater Capital City Statistical Area** (GCCSA).

WZs are generally highly self-contained. In the vast majority of WZs, at least 80 per cent of people working in the WZ also live in the WZ (BITRE 2018). However, the degree to which WZs are self-contained can vary depending on both geographic and economic factors.

Working Zone Update 2021 with GCSSA (2021)



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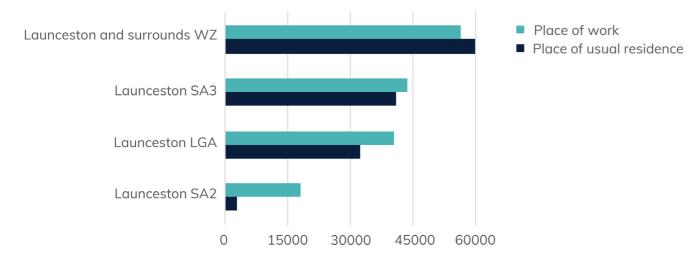


Illustration of a region – Launceston and surrounds working zone

The Launceston and surrounds WZ provides a useful illustration of how WZ boundaries differ from other geographical boundaries. This WZ contains 26 individual SA2s. As seen in the map, Launceston and surrounds WZ encompasses a larger area than the corresponding Statistical Area Level 3 (SA3) and Local Government Area (LGA). It incorporates surrounding townships including those situated less than 25km from the Launceston Central Business District (CBD), such as Hadspen, Longford, Grindelwald and Perth. All of these towns, while not being included in the LGA or SA3, have strong commuting flows with Launceston, and therefore are deeply connected to the city.

As of 2021, the size of employment in Launceston and surrounds WZ was 59,824 based on employed residents of the WZ (regardless of work location), and 56,502 based on people working in the WZ (regardless of residential location). In contrast, the SA3, SA2 and LGA geographic boundaries for Launceston have a larger number of people working in the area than workers who live locally. For example, the number of people living in the LGA who are employed (regardless of where) is 32,466, but 40,567 people work in the LGA (see Figure 1).

Figure 1 Launceston employment by different geographical scales, 2021



Source: ABS Census of Population and Housing 2021 (accessed via TableBuilder)

Working Zones Update 2021 of Launceston and surrounds









New South Wales and the Australian Capital Territory working zones

New South Wales (NSW) and the Australian Capital Territory (ACT) combined have over 80 WZs. Where the population density is lower, the WZs are geographically larger. This occurs in the west, with WZs such as Far West (NSW) and Bourke-Brewarrina. Just over 50 per cent of NSW WZs are single SA2s, while Sydney covers 344 SA2s across its region.

The Sydney WZ is smaller than its GCCSA. The broad area north of the Hawkesbury encompassing the Central Coast is separate under this structure as many people live and work locally. As such, it operates as its own labour market.

The NSW WZs construction also illustrates how this geography will capture commuter behavior unlikely to be detected by other geographic definitions. For example, as seen in the Albury-Wodonga cross-border WZ, commuting behavior is not limited by state border delineations. Instead this highly interconnected region shares many services and employment opportunities and can be viewed as a single labour market operating in two states. Other cross-border WZs can be observed in this geography, such as Gold Coast-Tweed Heads.1

Basic features of NSW/ACT WZs



Population

Largest: Sydney and surrounds 4.9 million persons

Smallest: Lord Howe Island 444 persons



Employment

Largest: Sydney and surrounds 2.3 million employed Smallest: Lord Howe Island 241 employed



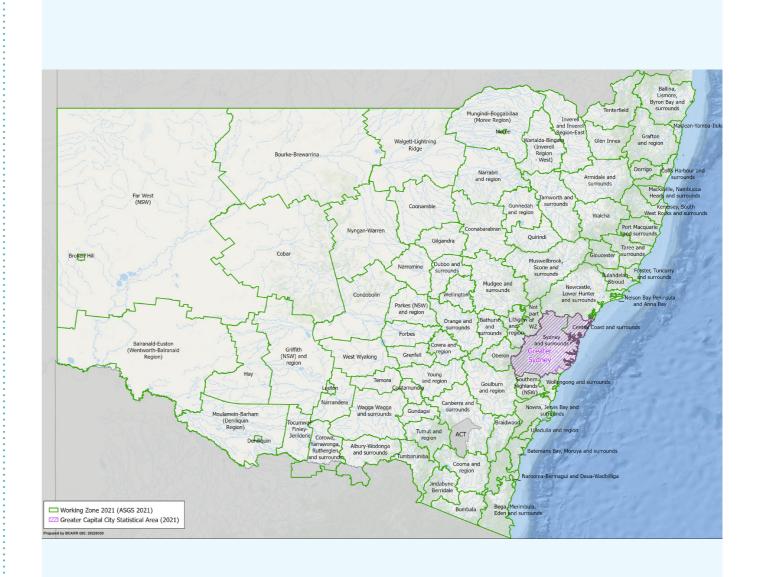
Area

Largest: Far West (NSW) 146,685 km² Smallest: Lord Howe Island 16 km²

Source: Population: ABS (2022) Regional population, 2021; Employment: ABS 2021 Census of Population and Housing, place of usual residence (accessed via TableBuilder); Area: ABS 2021, Australian Statistical Geography Standard (ASGS) Edition 3

1 Cross-border WZs have been assigned to the jurisdiction in which the majority of employed persons are located, which is why Albury-Wodonga is counted in NSW rather than Victoria.

Working Zone Update 2021 (ASGS 2021) with GCCSA (2021) – NSW and ACT









Victorian working zones

Victoria contains 48 WZs. Several WZs cross the NSW border such as Echuca. Moama and surrounds, and Mildura-Buronga and Wentworth. A minority of the state's WZs are a single SA2 (42 per cent), mainly in the western region.

The largest WZ, Melbourne and surrounds, covers 366 SA2s (more than the GCCSA with 361 SA2s). SA2s to the north and west of the city such as Bacchus Marsh Surrounds, Woodend and Kilmore-Broadford are included because of the strong commuting flows towards the city, despite being outside the GCCSA. This illustrates the strong draw of the capital for people to access jobs.

In terms of population and employment, three large WZs within the state are centred around the cities of Geelong, Ballarat and Bendigo. In the case of Geelong, the WZ includes nearly 40,000 more people than the Significant Urban Area of Geelong. The WZ population is 327,419 persons, with nearly 160,000 employed in 2021 (by place of usual residence). This illustrates the reach of these regional cities and their importance to local employment and service delivery.

Basic features of the Victorian WZs



Population

Largest: Melbourne and surrounds 5.0 million persons

Smallest: West Wimmera 2,748 persons



Employment

Largest: Melbourne and surrounds 2.5 million employed

Smallest: West Wimmera 1,270 employed

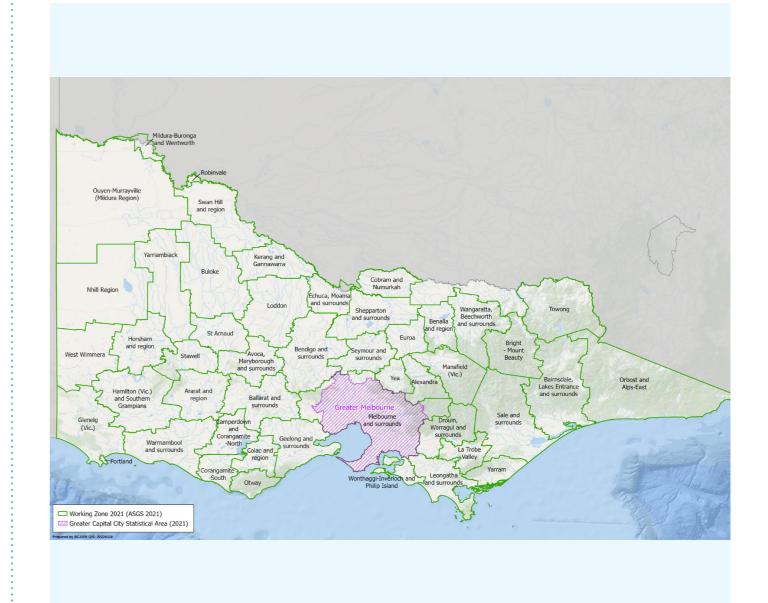


Largest: Ouyen-Murrayville (Mildura Region) 21,569 km²

Smallest: Portland 64 km²

Source: Population: ABS (2022) Regional population, 2021; Employment: ABS 2021 Census of Population and Housing, place of usual residence (accessed via TableBuilder); Area: ABS 2021, Australian Statistical Geography Standard (ASGS) Edition 3

Working Zone Update 2021 (ASGS 2021) with GCCSA (2021) - VIC









Queensland working zones

Queensland contains 69 WZs, with 61 per cent made up by a single SA2, reflecting both size and remoteness. In terms of population, the WZ of Croydon-Etheridge is the smallest with less than 1,000 people as at June 2021. But the state also contains seven regional centres with populations of over 100,000 people (excluding the capital of Brisbane). The largest is Gold Coast-Tweed Heads and surrounds with nearly 700,000 people, down to Maryborough, Hervey Bay and surrounds with over 112,000 people.

The Brisbane and surrounds WZ is substantially smaller than the GCCSA. The GCCSA of Greater Brisbane includes five WZs – Brisbane itself and four others: Kilcoy, Esk, Beaudesert and Boonah – each being a separate SA2. A factor to separate them from the Brisbane GCCSA was their connections with others areas, such as Beaudesert with the Gold Coast and Kilcov with the Sunshine Coast.

The only notable change to a WZ boundary resulted from the splitting of two previous 2016 SA2s in South-East Queensland into five new 2021 SA2s to account for a large growth in population. This resulted in a northward shift in the Gold Coast-Tweed Heads and surrounds WZ boundary.

Basic features of the Victorian WZs



Population

Largest: Brisbane and surrounds 2.6 million person

Smallest: Croydon-Etheridge 993 persons



Employment

Largest: Brisbane and surrounds 1.3 million employed Smallest: Aurukun 152 employed



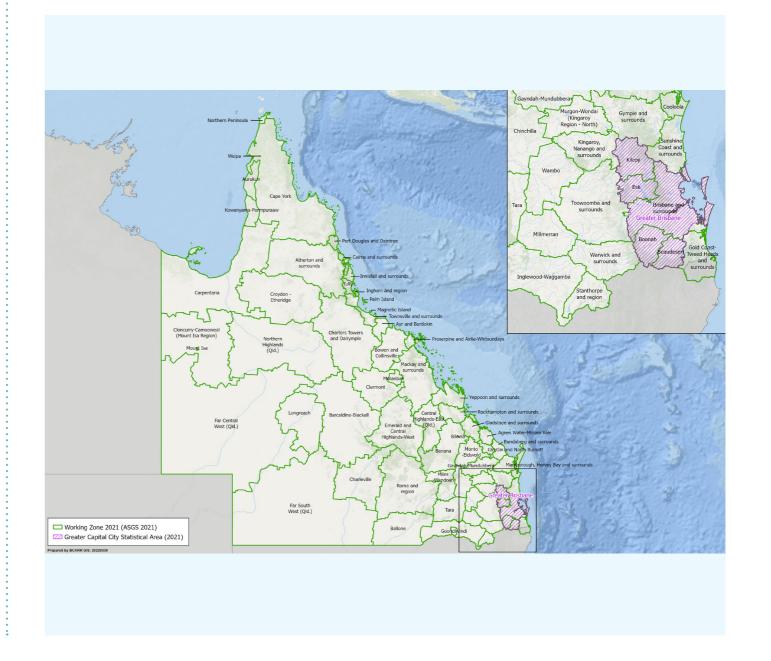
Area

Largest: Far Central West (Qld.) 271,273 km²

Smallest: Weipa 16 km²

Source: Population: ABS (2022) Regional population, 2021; Employment: ABS 2021 Census of Population and Housing, place of usual residence (accessed via TableBuilder); Area: ABS 2021, Australian Statistical Geography Standard (ASGS) Edition 3

Working Zone Update 2021 (ASGS 2021) with GCCSA (2021) - QLD









South Australia working zones

South Australia contains 35 WZs. Many are in the south eastern corner of the state, reflecting the population distribution. 66 per cent of South Australia's WZs are single SA2s.

The single largest WZ by area is Outback (SA) at over 500,000km², with a small population of only 2,099 people as at June 2021. It is based on a single SA2, and so is an example of a region that contains numerous small towns separated by many hundreds of kilometres, but which must be treated as one WZ. This is because WZs are built from SA2s rather than a finer geography. Outback (SA) contains towns such as Leigh Creek, Andamooka, Woomera, Yunta and Oodnadatta. Outback (SA) also surrounds the separate WZs of Roxby Downs and Coober Pedy.

The Adelaide and surrounds WZ is the largest in the state in terms of population and employment. It is larger than the GCCSA. To the north it captures a number of SA2s in the Barossa Valley and some adjoining coastal areas, and to the south it captures Strathalbyn and its surrounds.

As can be seen in the map, Western SA2 (the large area on the border with WA, under APY Lands WZ) was not included as a WZ. It is too small to be a WZ and does not have sufficient flows to any WZ to join another one. There are fewer than 60 employed residents in the region.

Basic features of South Australian WZs



Population

Largest: Adelaide and surrounds 1.5 million persons

Smallest: Coober Pedy 1,624 persons



Employment

Largest: Adelaide and surrounds 696,684 employed

Smallest: APY Lands 518 employed

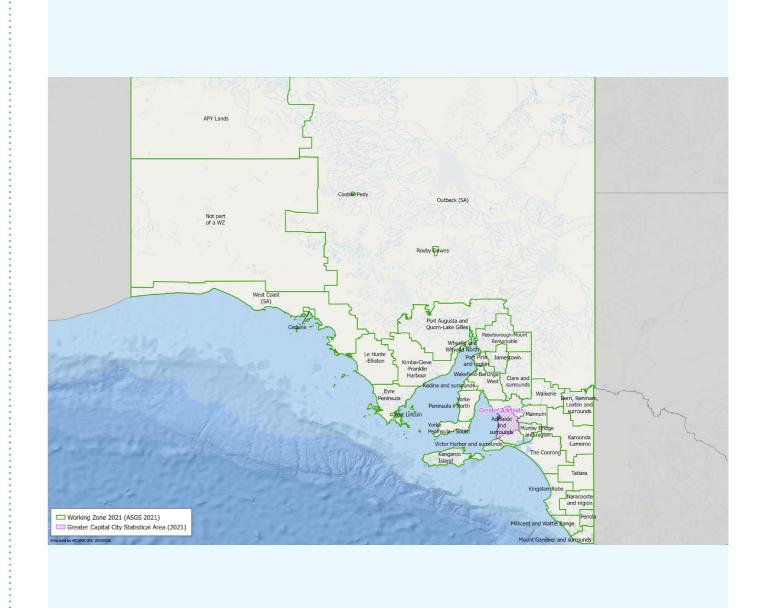


Largest: Outback (SA) 513,391 km²

Smallest: Coober Pedy 78 km²

Source: Population: ABS (2022) Regional population, 2021; Employment: ABS 2021 Census of Population and Housing, place of usual residence (accessed via TableBuilder); Area: ABS 2021, Australian Statistical Geography Standard (ASGS) Edition 3

Working Zone Update 2021 (ASGS 2021) with GCCSA (2021) - SA









Western Australia working zones

The state of Western Australia contains 44 WZs, with 70 percent having a single SA2. This reflects the state's vast geography yet sparsely populated nature, particularly in regional areas. In addition, remote mining area jobs can involve many employees who fly in and fly out of their work location on a rotating roster from homes elsewhere. This makes self-containment low for those regions, in terms of people who work in the region having a different place of usual residence.

The majority of Western Australia's WZs are located in the more populated south western corner of the state. Other than Perth, the three WZs with five or more SA2s are Bunbury and surrounds, Kalgoorlie and Nullarbor Plain, and Albany and surrounds. These are major services centres for their surrounding area and as such, they are major employment hubs.

Perth and surrounds WZ is larger than the capital's GCCSA boundary, including three SA2s outside the GCCSA. These are Chittering to the north, and to the south, Waroona and the mining area of Murray. These three SA2s raise the population of Perth and surrounds by almost 13,000 people.

Basic features of Western Australian WZs



Population

Largest: Perth and surrounds 2.2 million persons

Smallest: Gnowangerup 2,958 persons



Employment

Largest: Perth and surrounds 1.1 million employed

Smallest: Halls Creek 789 employed

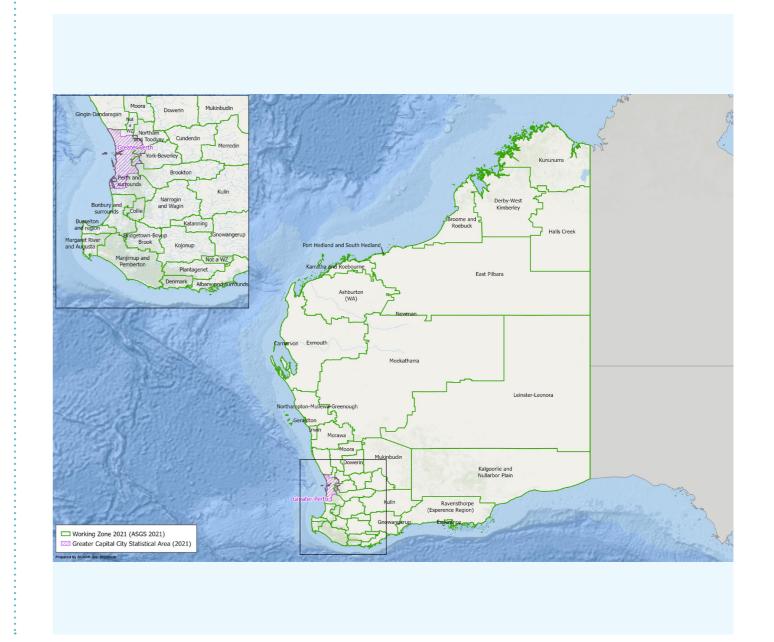


Largest: Leinster-Leonora 495,840 km²

Smallest: Newman 17 km²

Source: Population: ABS (2022) Regional population, 2021; Employment: ABS 2021 Census of Population and Housing, place of usual residence (accessed via TableBuilder); Area: ABS 2021, Australian Statistical Geography Standard (ASGS) Edition 3

Working Zone Update 2021 (ASGS 2021) with GCCSA (2021) – WA









Tasmania working zones

Tasmania has 13 WZs, with nine having less than 4,000 employed persons and 62 per cent having only one SA2, such as King Island, and Flinders and Cape Barren Islands in the State's north.

Hobart and surrounds WZ is substantially larger than the GCCSA geographical classification. This is a reflection of the very large SA2s surrounding the capital, corresponding with very small populations who largely work in the Hobart region.

For example, the Central Highlands SA2 in the centre of Tasmania is included in Hobart and surrounds WZ. A major reason for this is that the vast majority of the population reside in the south east corner less than 100km from the Hobart CBD.

Many of the Tasmanian WZs have Agriculture, Forestry and Fishing as their largest employing industry. For example, Smithton and North West WZ has about 500 people employed in Dairy Cattle farming by place of usual residence, which represents the majority of the people employed in Agriculture, while King Island's biggest industry is Beef Cattle farming.

Basic features of the Tasmanian WZs



Population

Largest: Hobart and surrounds 286,132 persons Smallest: Flinders and Cape Barren Islands 938 persons



Employment

Largest: Hobart and surrounds 133,273 employed Smallest: Flinders and Cape Barren Islands 453 employed



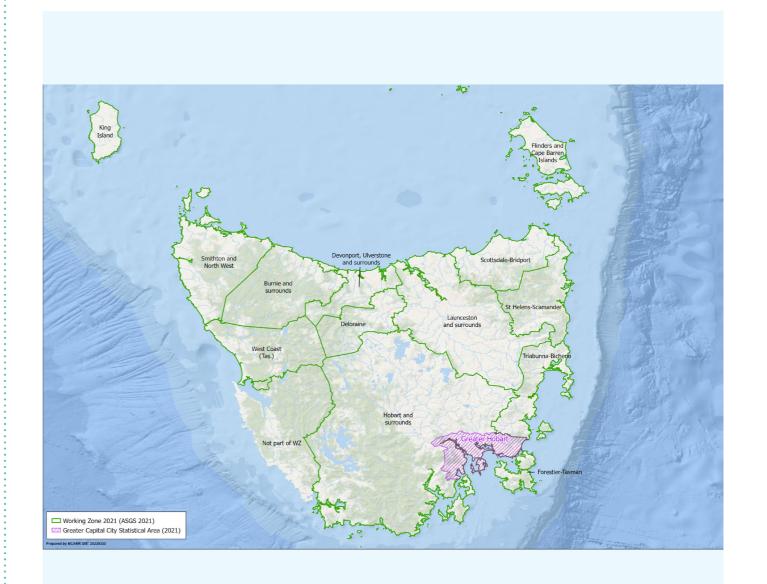
Area

Largest: Hobart and Surrounds 22.315 km²

Smallest: Forestier-Tasman 660 km²

Source: Population: ABS (2022) Regional population, 2021; Employment: ABS 2021 Census of Population and Housing, place of usual residence (accessed via TableBuilder); Area: ABS 2021, Australian Statistical Geography Standard (ASGS) Edition 3

Working Zone Update 2021 (ASGS 2021) with GCCSA (2021) - TAS









Northern Territory working zones

The Northern Territory contains 19 WZs, with only two having a number of employed persons over 5,000 – Darwin and surrounds and Alice Springs and surrounds. These locations have an industry structure that illustrates their administrative and service roles across the Territory.

A feature of the Northern Territory's WZs is their very small populations combined with large land areas. This reflects the nature of the Northern Territory's population size, density and distribution. Seventeen of the WZs are single SA2s, illustrating very limited commuting flows between SA2s.

Another aspect of this attribute is that Northern Territory WZs can be dominated by one industry. For example, Agriculture, Forestry and Fishing represents nearly 50 per cent (301 employed persons) of employment in Barkly by place of usual residence, while Accommodation and food services accounts for 46 per cent (435 employed persons) of employment in Petermann-Simpson.

Basic features of the Northern Territory WZs



Largest: Darwin and surrounds 148,801 persons **Smallest:** Yuendumu-Anmatjere 2,123 persons



Employment

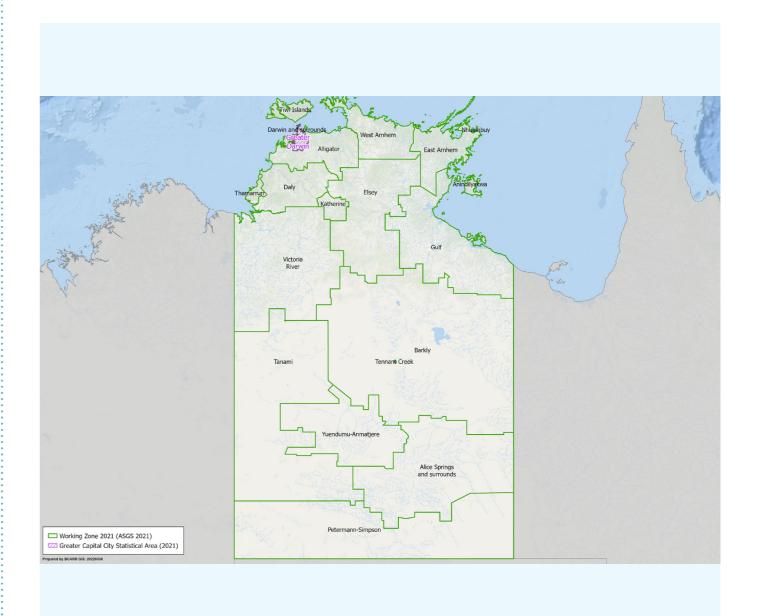
Largest: Darwin and surrounds 74,633 employed Smallest: Yuendumu-Anmatjere 326 employed



Largest: Barkly 303,169 km² Smallest: Nhulunbuy 8 km²

Source: Population: ABS (2022) Regional population, 2021; Employment: ABS 2021 Census of Population and Housing, place of usual residence (accessed via TableBuilder); Area: ABS 2021, Australian Statistical Geography Standard (ASGS) Edition 3

Working Zone Update 2021 (ASGS 2021) with GCCSA (2021) - NT









Technical Working Zones Update

This update shifts the underlying building blocks of the WZ geography, SA2s, from the 2016 to the 2021 Australian Statistical Geography Standard. This update does not change the WZ boundaries based on the 2021 Census of Population and Housing commuting flows, as these flows are likely to have been impacted by COVID-19 lockdowns.

Instead, the 2016 WZs are retained, with two WZs being altered only to reflect the changes in SA2 boundaries. The new 2021 SA2s had little impact on the WZ boundaries overall.

The only notable change to a WZ boundary resulted from the splitting of two previous 2016 SA2s in South-East Queensland into five new 2021 SA2s to account for a large growth in population. This resulted in a northward shift in the Gold Coast-Tweed Heads and surrounds WZ boundary.

In addition, two name changes reflected changes in SA2 names and population size:

- 2016 Lismore and surrounds; 2021 Ballina, Lismore, Byron Bay and surrounds
- 2016 Mildura Wentworth; 2021 Mildura-Buronga and Wentworth

Accompanying this document is an Excel spreadsheet with a correspondence between the ASGS 2021 SA2s and their WZ boundaries. A shapefile can also be downloaded for mapping your data. For further information on WZs, the 2018 publication provides details on method and uses:

SA2 geography

There are 2,454 SA2s covering the whole of Australia (plus 19 non-spatial codes). SA2s generally have populations of 3,000 to 25,000 persons. For more information about statistical geography boundaries, refer to: <u>Understanding statistical geography</u>.

Construction of Working Zones

For more details on the original construction of the WZ boundaries, refer to: BITRE Working Zones 2016.

BCARR's <u>Understanding statistical geography</u> factsheet provides a quick quide to understanding spatial boundaries used to produce, analyse and publish regional data. It describes some common boundaries, and explains how regional data users can choose the most appropriate for their purpose.

Australian Bureau of Statistics (ABS) 2021, Australian Statistical Geography Standard (ASGS) Edition 3, July 2021 - June 2026 | Australian Bureau of Statistics (abs.gov.au)

ABS 2022, Regional population, 2021 | Australian Bureau of Statistics (abs.gov.au)

ABS 2022, Find Census data | Australian Bureau of Statistics (abs.gov.au), accessed via TableBuilder

Bureau of Infrastructure, Transport and Regional Economics (BITRE) 2018, Working Zones 2016 | Bureau of Infrastructure and Transport Research Economics (bitre.gov.au)