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Inequities in Suicide Rates and Employment Status

Research Report
Stretton Health Equity

Miriam van den Berg
Emily Aldridge
Toby Freeman
Natalie Aboustate
Fran Baum
Matthew Fisher
Jon Jureidini
Melissa Raven
Anthony Smith

*A report supported by an MRFF Mental Health Research Grant
(2025632) and University of Adelaide Faculty of Arts, Business,
Law and Economics (ABLE) research grant*

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history.**

Inequities in Suicide Rates and Employment Status

Research Report

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Stretton Institute, The University of Adelaide
Adelaide SA 5005

Dr Miriam van den Berg
Dr Emily Aldridge
Associate Professor Toby Freeman
Dr Natalie Aboustate
Professor Fran Baum
Dr Matthew Fisher
Professor Jon Jureidini
Dr Melissa Raven
Anthony Smith

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Introduction

This summary report presents data on suicide deaths related to employment status in Australia for 2012-2021. The data presented in this report was sourced from the National Coronial Information System (NCIS) and analysed by University of Adelaide researchers as part of a project called *Work and unemployment: vital to effective suicide prevention*, which was funded through the Australian Government Department of Health and Aged Care's Million Minds Mental Health Research Mission. The project aims to contribute to reduced suicide attempts and deaths by suicide in Australia through investigating the role of government policy, employers, suicide prevention networks and general practitioners in suicide prevention. As part of the project the research team wanted to understand the current picture of inequities in suicide and employment status in Australia, so sought to analyse the most up to date data to provide a current profile of these inequities. The term *inequities* refers to the avoidable and unfair differences in suicide outcomes between population groups that stem from social and economic conditions and structures.

Background

Globally, in excess of 700,000 people die by suicide every year, the majority of which are people of working age (15-64 years) (World Health Organisation (WHO, 2021). In Australia, suicide is a leading cause of death for people aged 15-44 (Australian Institute of Health and Welfare (AIHW, n.d.-a). Australian suicide rates have fluctuated over time, partly reflecting variations in the way data has been collected and reported; however, over the last 10 years (2014-2023), age-standardised suicide rates for both sexes have remained consistent (AIHW, n.d.-b). Death by suicide does not represent the full extent of the problem. Many more people experience suicidal ideation and attempt suicide. Self-harm, with or without suicidal intent, is even more common (AIHW, n.d.-b). In Australia, females are more likely to self-harm than males, while males are more likely to die by suicide than females (AIHW, n.d.-b).

The data presented here illustrate significant inequities in deaths by suicide based on employment status, and how this relates to geographical location, age, sex, Aboriginality, and occupation. Also included in this report are some of the reasons why people with different employment statuses may present to health services in the period leading up to suicide.

There are many social determinants of suicide (Gallagher et al., 2025)—employment status is one of these, but employment status also combines with other factors to create a complex public health problem. The data presented here may be useful for describing the problem in conjunction with other data—particularly from narrative and policy sources.

About the data

This report provides information about deaths reported to an Australian state or territory coroner. Cases were included where the deceased was aged between 18 and 64 years and died due to intentional self-harm. Cases were included where the death was notified to a coroner between 1 January 2012 and 31 December 2021.

For each case, the *employment status* field reflects the employment status of the deceased at the time of their death. This field does not reflect type of employment or previous employment status. The *usual occupation code* is an optional coded field that is populated according to the [Australian and New Zealand Standard Classification of Occupations](#) (ANZSCO).

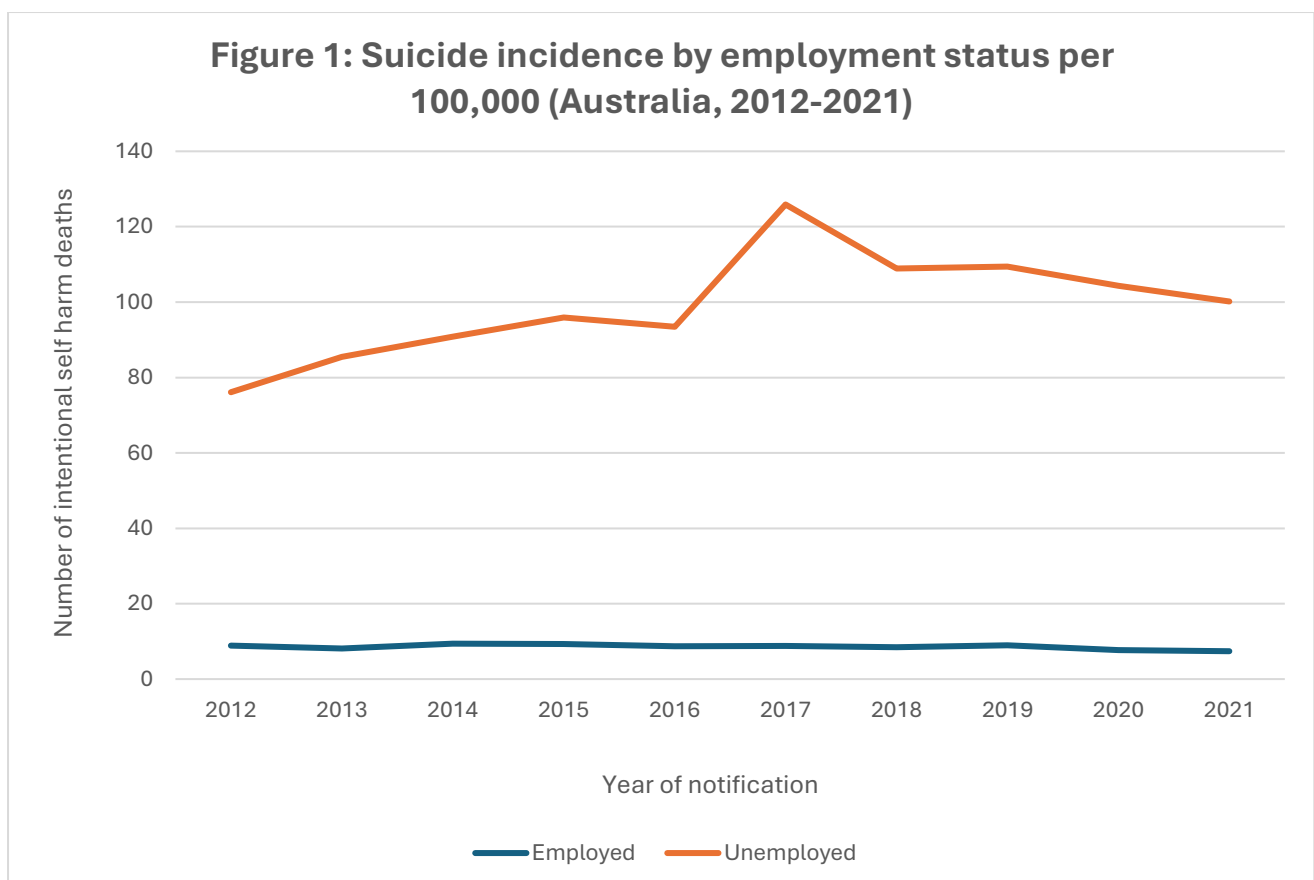
There are several limitations to consider when interpreting the data in this report:

- The data presented here relates to the Australian population only.
- The NCIS identifies several limitations in its data e.g. only closed cases are included, dates relate to the year of investigation not necessarily the year of death, and there may be variations in coding related to occupation. Further information can be found [here](#).
- The suicide data reported here relates to persons aged 18 to 64 years only. Where incidence rates based on employed and unemployed groups have been calculated, these are based on population data for persons aged 15 years and over unless otherwise stated.
- Only a limited number of ICD-10 codes are reported here, and not all suicide cases would have been assigned a selected ICD-10 code(s). Further information about ICD-10 codes is available [here](#).
- People grouped into 'Other employment status' include students, unpaid domestic workers, carers, retired, prisoner, and those not engaged in the labour force for other reasons. It is not possible to calculate suicide incidence rates for this group as population numbers for this group are not available. Only the number of suicide deaths for First Nations peoples who are in other employment status is presented.

- Data on death by suicide for other population groups who are at increased risk of suicide, such as the LGBTIQ+ community, are not currently collected by the NCIS. For further information visit: [LGBTIQ+ Australians: Suicidal thoughts and behaviours and self-harm - Suicide & self-harm monitoring - AIHW](#). The Coroners Court of Victoria has also published some data: [Coroners Court of Victoria - Suicide among LGBTIQ+ people | Coroners Court of Victoria](#).

Inequities based on employment status

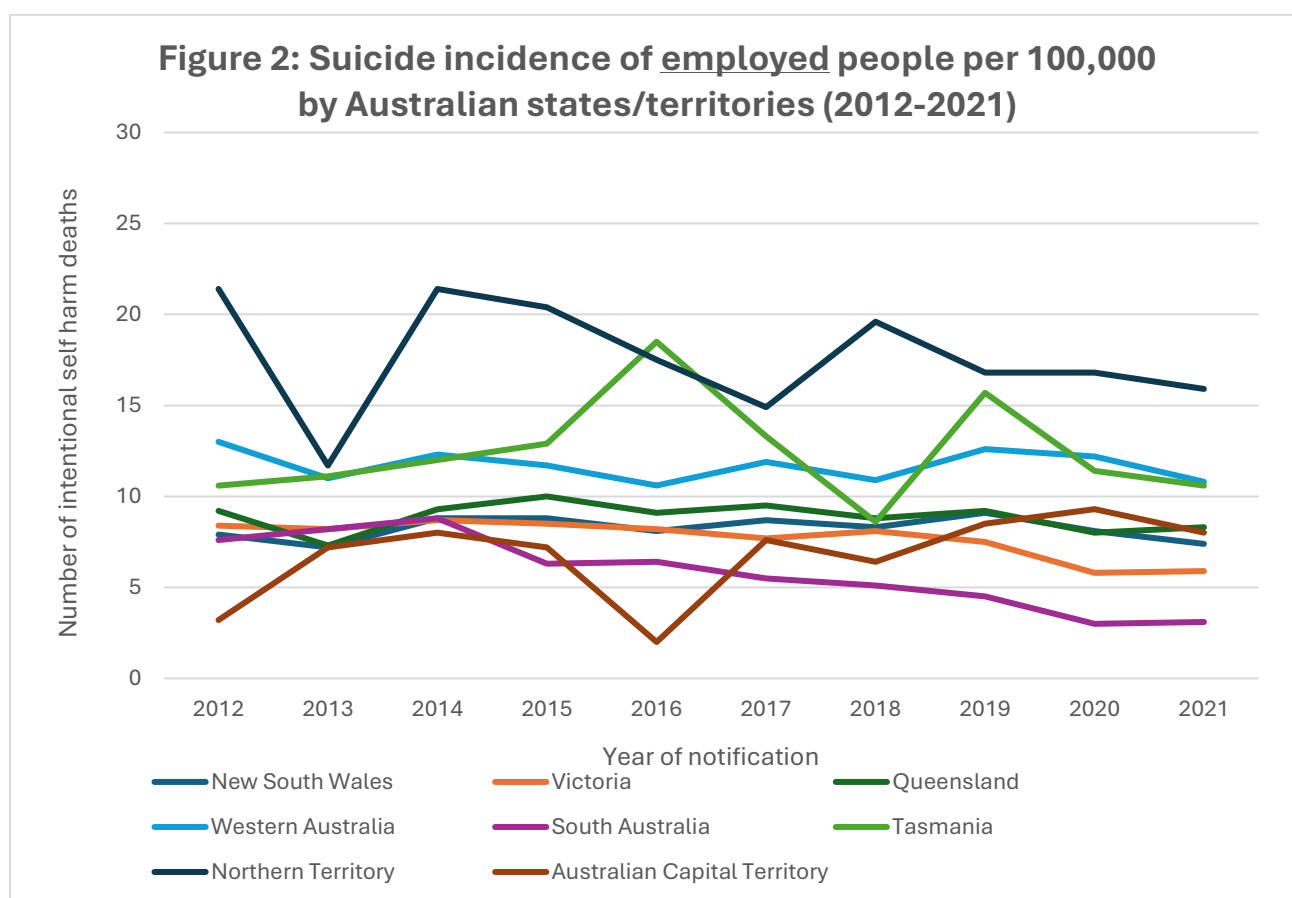
- UNEMPLOYED people are much more likely to die by suicide than EMPLOYED people (**Figure 1**).
- In 2021, people who were UNEMPLOYED were 14 times more likely to die by suicide than those with EMPLOYMENT (8 employed people compared to 100 unemployed people per 100,000).



Note: Suicide incidence by employment status per 100,000 Australians was calculated using 2016 and 2021 Census data estimates of unemployed and employed people.

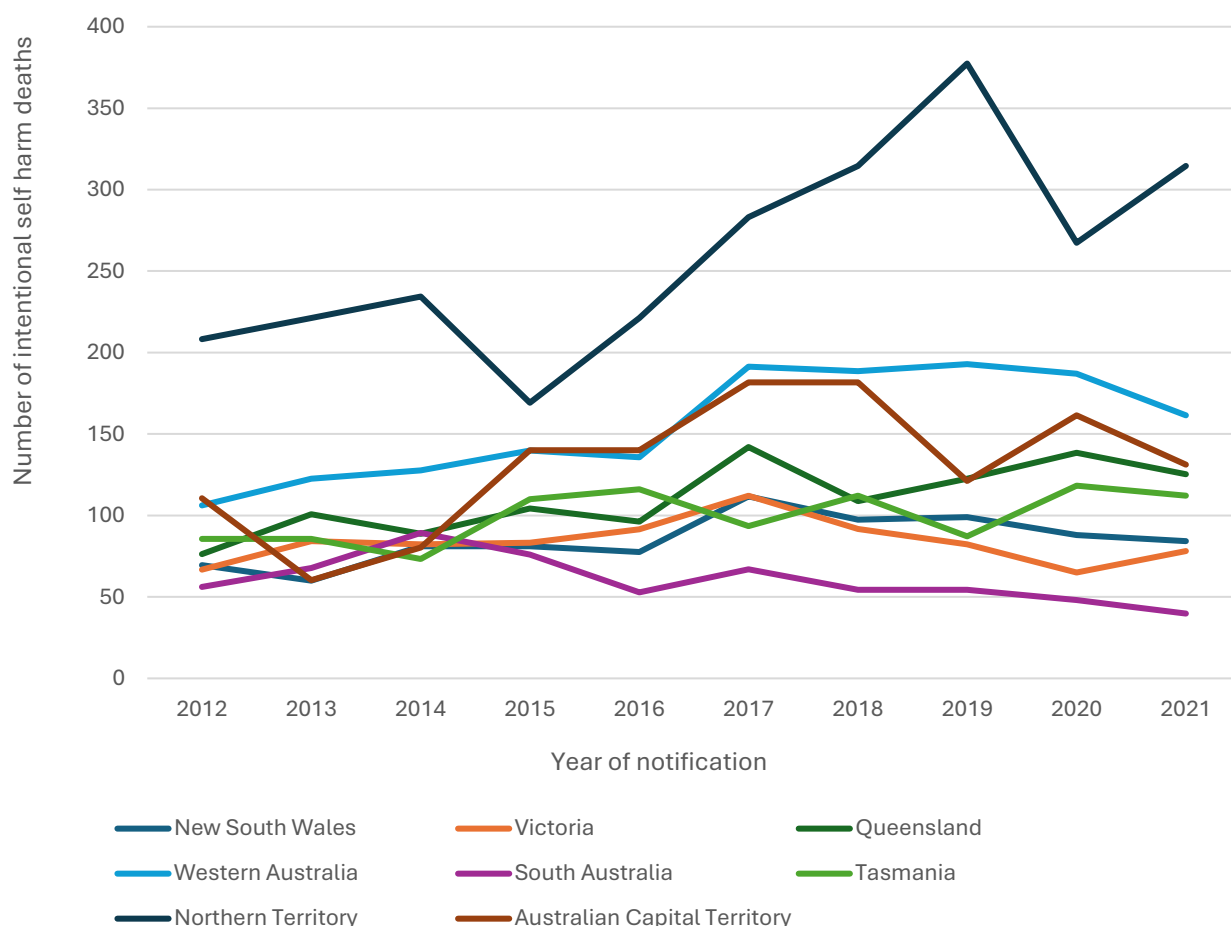
Inequities based on geographical location

- Suicide rates among both those who have EMPLOYMENT and those who are UNEMPLOYED is highest in the Northern Territory.
- **Figure 2** shows the suicide rate for EMPLOYED per 100,000 by Australian state/territory.
- **Figure 3** shows the suicide rate for UNEMPLOYED people per 100,000 by Australian state/territory.
- In 2021, 315 UNEMPLOYED people for every 100,000 unemployed people died by suicide in the Northern Territory compared to the lowest rate of 40 per 100,000 people in South Australia.
- In 2021, UNEMPLOYED people in the Northern Territory were 20 times more likely to die by suicide than Northern Territorians who were EMPLOYED (315 unemployed people compared to 16 unemployed people per 100,000).



Note: Suicide incidence by Australian state/territory per 100,000 was calculated using 2016 and 2021 Census data of employed and unemployed population estimates per state/territory.

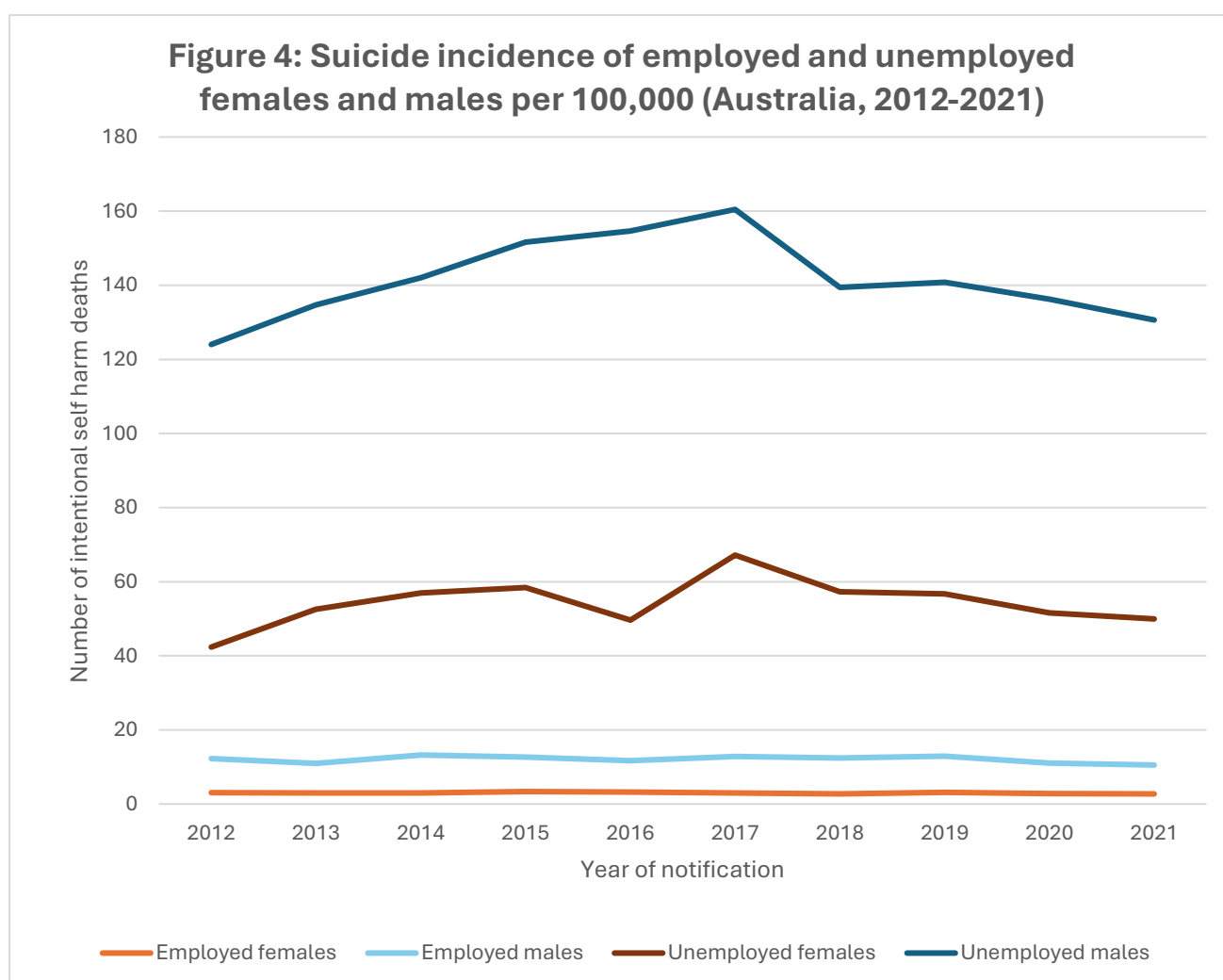
Figure 3: Suicide incidence of unemployed people per 100,000 by Australian states/territories (2012-2021)



Note: Suicide incidence by Australian state/territory per 100,000 was calculated using 2016 and 2021 Census data of employed and unemployed population estimates per state/territory.

Inequities based on sex

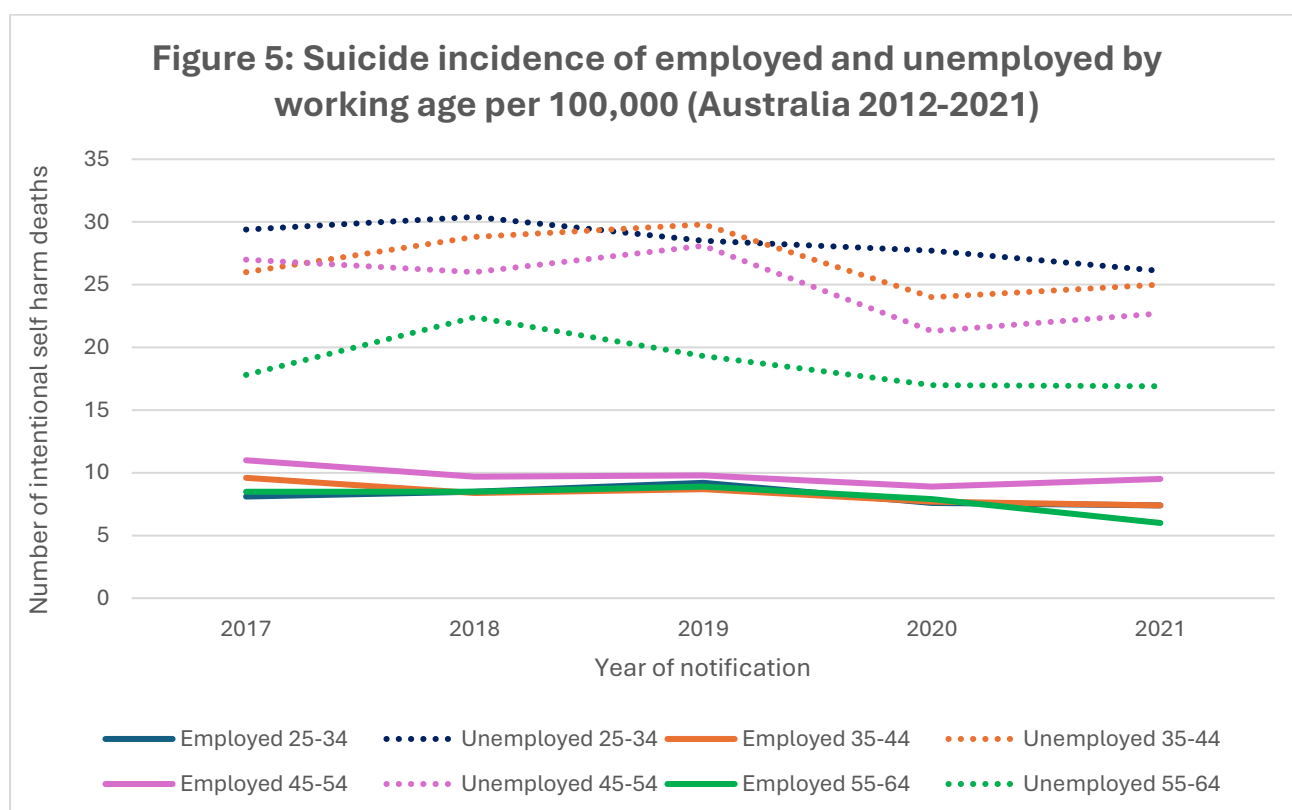
- **Figure 4** illustrates the suicide incidence rate for EMPLOYED and UNEMPLOYED people by sex.
- Both UNEMPLOYED and EMPLOYED males are more likely to die by suicide than females with the same employment status.
- UNEMPLOYED males were 3 times more likely to die by suicide than UNEMPLOYED females in 2021 (155 unemployed males compared to 50 females per 100,000).
- UNEMPLOYED males were 13 times more likely to die by suicide than EMPLOYED males in 2021 (12 employed males compared to 155 unemployed males per 100,000).



Note: Suicide incidence of total employed and unemployed (looking for part or full time work) females and males per 100,000 using June, 2016 and June, 2021 seasonally-adjusted employment data published by the Australian Labor Force Survey, [ABS](#).

Inequities based on age

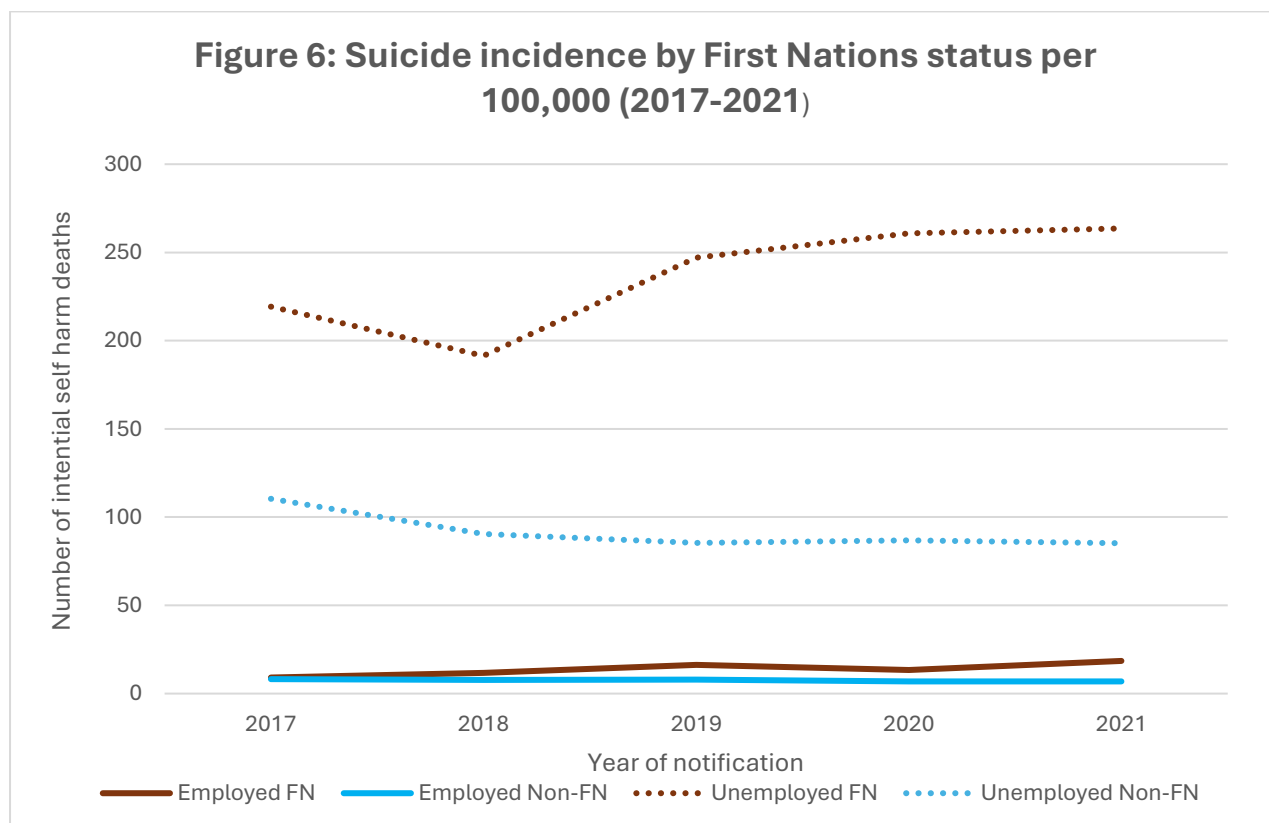
- **Figure 5** shows the suicide rate for EMPLOYED and UNEMPLOYED people by age per 100,000.
- UNEMPLOYED people of all age groups are more likely to die by suicide than EMPLOYED people.
- During 2017-2021, among UNEMPLOYED people, younger (25-34 years) people had a higher incidence of suicide deaths (average of 28 persons per 100,000) than other age groups. Due to differences in the way data is reported, data for those aged under 25 years is not provided here.
- Among EMPLOYED people, those of middle-age (45-54 years) had a higher incidence of death by suicide than other age groups (average of 10 persons per 100,000).
- In 2021, UNEMPLOYED people aged 25-34 years were 4 times more likely to die by suicide than people of the same age with EMPLOYMENT (26 unemployed 25-34 year olds compared to 7).



Note: Suicide incidence of employed and unemployed persons per 100,000 based on 2021 Census data for employed and unemployed persons by age group.

Inequities based on Aboriginality

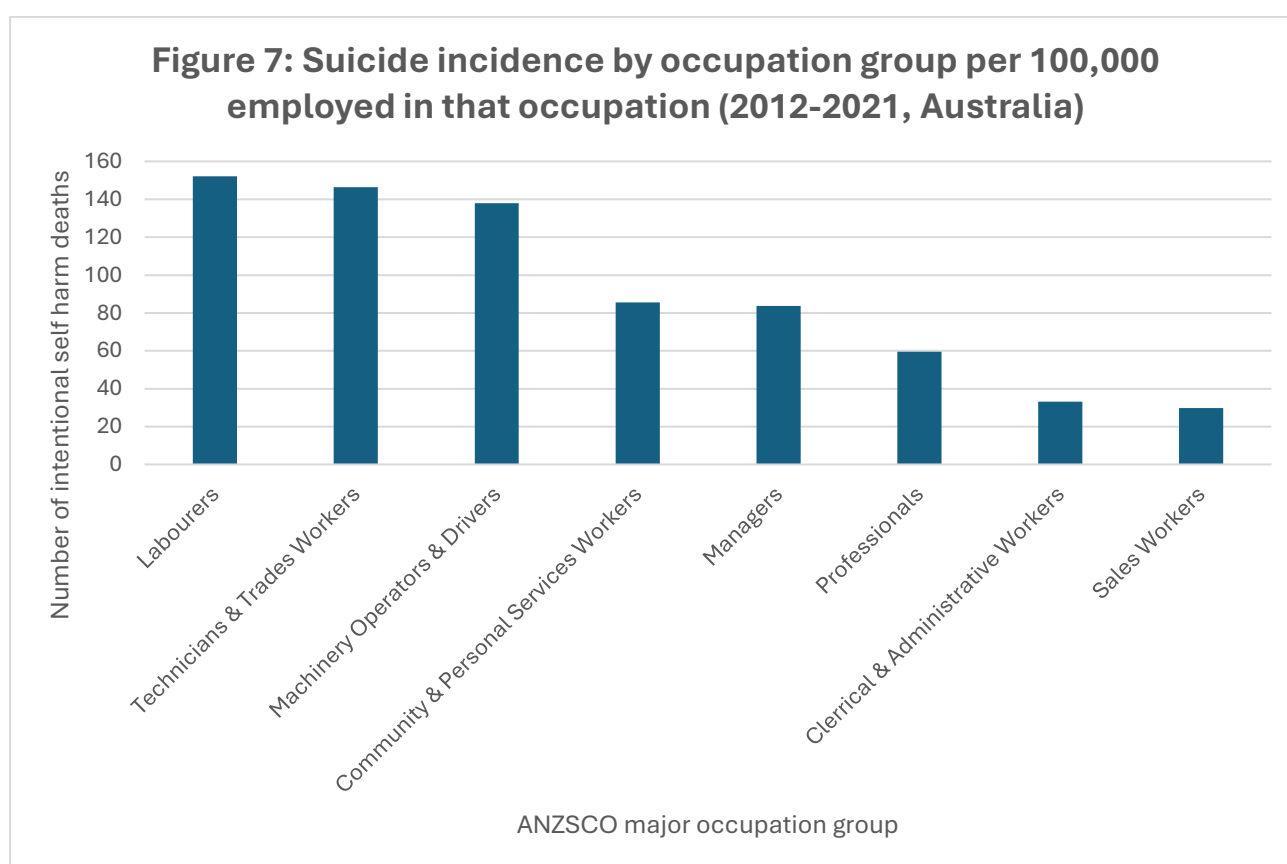
- Both EMPLOYED and UNEMPLOYED First Nations (FN) peoples are more likely to die by suicide than non-Aboriginal EMPLOYED and UNEMPLOYED peoples (see **Figure 6**). Data on the total number of FN peoples who were employed and unemployed were not available from the cited data sources prior to 2017 and therefore suicide incidence prior to 2017 is not reported here.
- In 2021, 264 UNEMPLOYED First Nations people for every 100,000 unemployed First Nations people died by suicide compared to 85 non-Aboriginal UNEMPLOYED people.
- UNEMPLOYED First Nations peoples were 38 times more likely to die by suicide than non-Aboriginal EMPLOYED peoples i.e. for every 100,000 people, there were 264 suicides among UNEMPLOYED First Nations peoples compared to 7 suicides among non-Aboriginal people who were EMPLOYED.



Note: Suicide incidence by First Nations identity per 100,000 employed and unemployment data sourced from the [Australian Institute of Health & Welfare \(2023\)](#) Aboriginal and Torres Strait Islander Health Performance Framework, 2.07 Employment. ATSI=Aboriginal and Torres Strait Islander peoples. The term 'First Nations' refers to Aboriginal and Torres Strait Islander people who are the first peoples of Australia.

Inequities among occupation groups

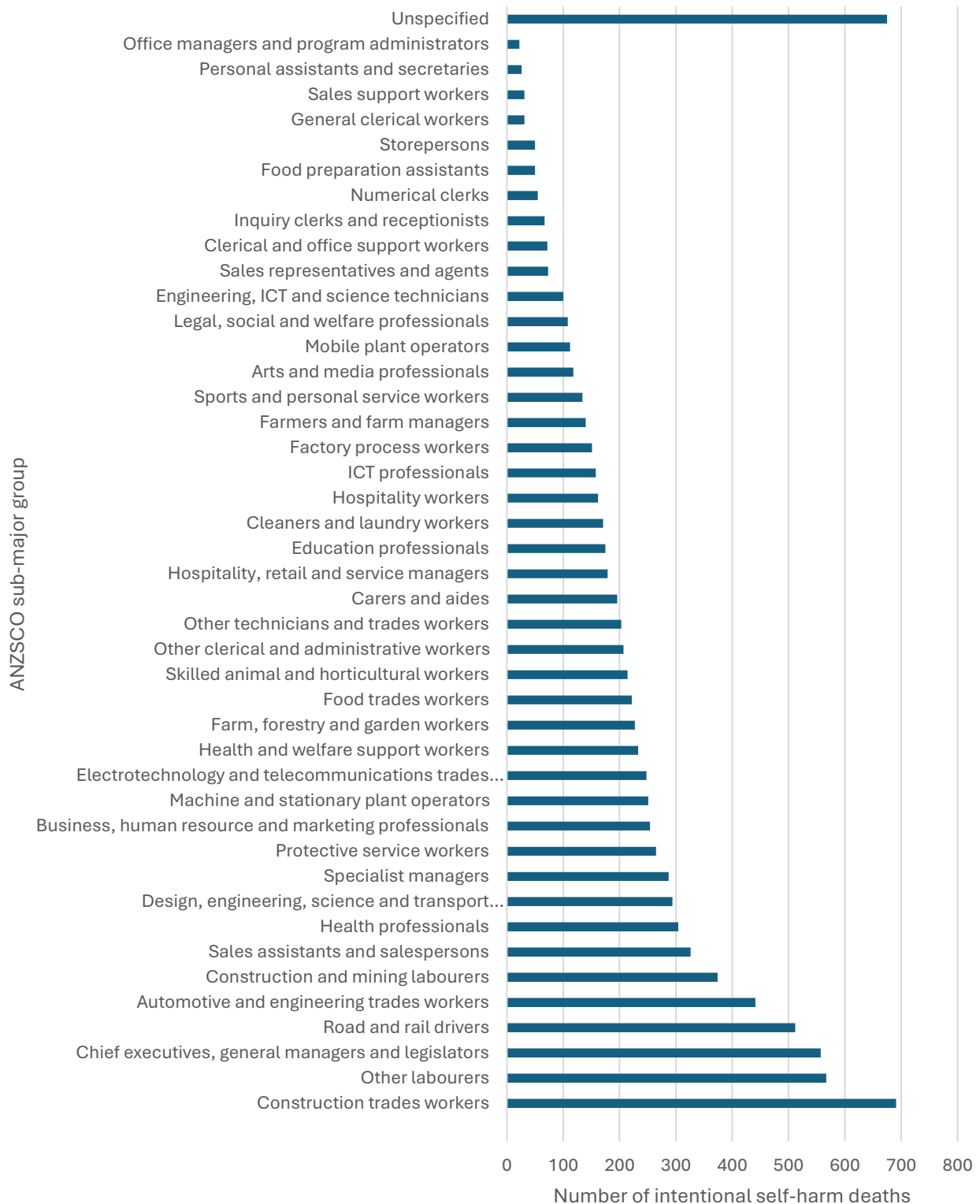
- LABOURERS (e.g. working in construction, mining, farming, forestry, cleaning, factory process, food prep etc.) have the highest incidence rate of suicide per 100,000 workers among all occupation groups (**Figure 7**).
- Most employed people who die by suicide are employed as TECHNICIANS AND TRADES WORKERS (21.8% of all suicides by EMPLOYED people across all occupation groups). This group includes people employed in construction, automotives, the skilled animal sector, telecommunications, engineering etc.



Note: Suicide incidence by occupation group per 100,000 employed in that occupation group (ANZSCO) based on 2016 Census (ABS). ANZSCO stands for Australian and New Zealand Standard Classification of Occupations, and is a system that groups jobs into occupations based on skill level and specialisation.

- From 2012-2021, most suicides occurred among CONSTRUCTION WORKERS (691) (who are part of the Technicians and Trades Workers group), with fewest suicide deaths involving OFFICE MANAGERS AND PROGRAM ADMINISTRATORS (22) (who are part of clerical and administrators workers group) (**Figure 8**).

Figure 8: Total suicide deaths of employed people by ANZSCO sub-major group over 10 yrs (2012-2021)

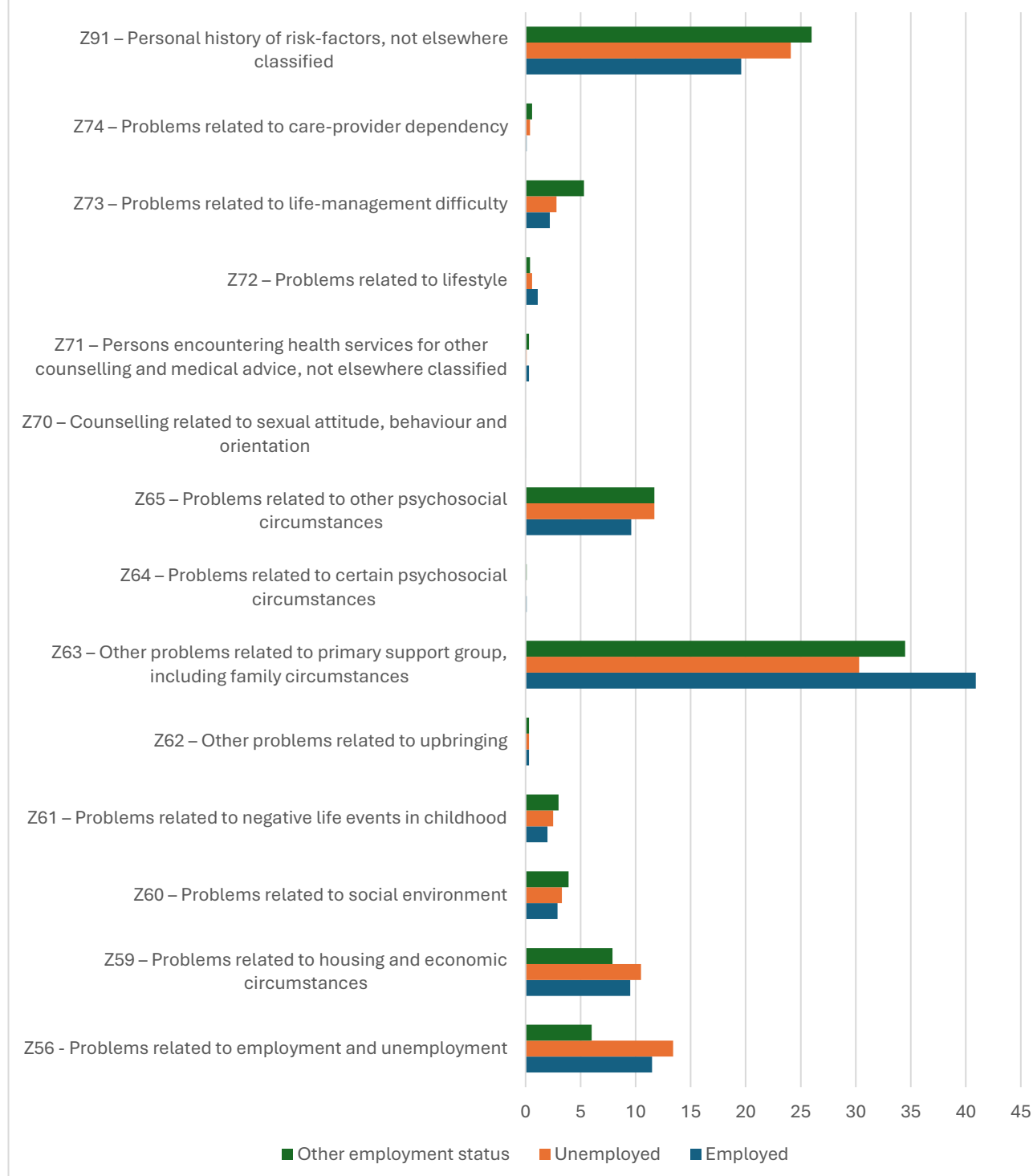


Note: ANZSCO stands for Australian and New Zealand Standard Classification of Occupations, and is a system that groups jobs into occupations based on skill level and specialisation.

Social determinants of suicide influencing contact with health services

- **Figure 9** illustrates the ICD-10 codes attributed to suicide deaths by employment status for the period 2012-2021.
- Of the 'factors influencing health status and contact with health services', the most common ICD-10 code attributed to suicide deaths in the case of all persons of WORKING AGE (18-64 years) was 'other problems related to primary support group, including family circumstances'.
- This code was more commonly reported for those who were EMPLOYED (40.9%) and OTHER EMPLOYMENT STATUS (34.5%) than those who were UNEMPLOYED (30.3%).
- 'Problems related to employment and unemployment' were attributed to 11.5% of suicides among EMPLOYED people, 13.4% of suicides among UNEMPLOYED and 6% of suicides among those described as having OTHER EMPLOYMENT STATUS.
- Only a limited number of ICD-10 codes are reported here, and not all suicide cases would have been assigned a selected ICD-10 code(s). Further information about ICD-10 codes is available [here](#).

Figure 9: Proportion of suicide deaths attributed to factors influencing health status and contact with health services (Australia, 2012-2021)



Note: Proportion of suicide deaths attributed to ICD-10 codes (Australia, 2012-2021) based on the total instances the code was identified, not total deaths.

References

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