2026 Australian Worker Exposure Survey

Analytical Report

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Social Research Centre

safe work australia

Acknowledgements

We acknowledge the Boonwurrung and Wurundjeri Woi-wurrung peoples of the Kulin Nation as the Traditional Custodians of the lands on which our company is located, and Traditional Owners of Country throughout Australia. We pay our respects to Elders past and present, who carry the memories, traditions, cultures and aspirations of First Peoples, and who forge the path ahead for emerging leaders.

The Social Research Centre is committed to honouring First Nations peoples' ongoing unique cultural and spiritual connections to the land, water and seas and their rich contribution to society. Working respectfully and in allyship, we extend our respects to all Aboriginal and Torres Strait Islander peoples and acknowledge that sovereignty was never ceded.

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Purpose

The 2026 Australian Worker Exposure Survey (AWES 2026) provides Safe Work Australia (SWA) with a contemporary, nationally consistent picture of exposure to priority work-related hazards across the Australian workforce. It shows which of these hazards are most common, where exposure is concentrated, and which workers and workplaces are most likely to be exposed. The findings support prevention-focused work health and safety (WHS) action and provide a baseline for monitoring change over time.

Method overview

AWES 2026 used a mixed-methods design. The main component was a national quantitative survey of workers aged 15 years and over (n=6,617), delivered online and by telephone. Results are weighted to represent the Australian working population.

The quantitative survey used the Occupational Integrated Database Exposure Assessment System (OccIDEAS), a web-based platform used for task-based occupational exposure assessment. In AWES 2026, OccIDEAS was used to assess exposure to key occupational agents, including chemicals, metals, solvents, radiation, products of combustion, dusts, heat at work and shift work. OccIDEAS measures probable exposure, with low, medium and high levels recorded, where available.

The quantitative survey also included a psychosocial hazards module that was completed by all respondents. For psychosocial hazards, exposure was measured by asking the extent to which participants agreed with a range of statements, or how frequently they experienced a range of different situations at work.

Qualitative research comprising in-depth interviews and a 3-day online discussion board, provided additional context on how hazards are experienced and managed in day-to-day work. The findings are reported separately in the *2026 Australian Worker Exposure Survey (AWES) Qualitative Report*.

For more information regarding the methodology please refer to Appendix 1.

Key findings

Work-related hazard exposure is common. Around two-thirds of workers (68.0%) experienced probable exposure to at least one agent. If applied to the national workforce, this suggests about 10.2 million workers may have been exposed to at least one of the agents assessed through the AWES[1]. Overall, 28.9% of workers were probably exposed to at least one agent at a high level, 17.1% at a medium level and 22.0% at a low level.

Most common agent exposures

The AWES 2026 reveals that:

- The most common agent group workers are exposed to is products of combustion (43.2% of workers), followed by radiation (36.9%), solvents (31.2%), heat at work (29.9%), dusts (17.5%), chemicals (14.3%) and metals (8.0%).
- The most common exposure to individual agents are ocular UV (32.6%), solar UV (32.4%), benzene (31.0%), heat at work (29.9%), diesel engine exhaust (26.3%), environmental tobacco smoke including vapes (25.8%) and silica (13.6%).

[1] Based on around 15.0 million employed people in Australia in the ABS Labour Account, December quarter 2025.

High level exposure: Around one in ten workers experience high level exposure to non-ionising radiation (10.3%), products of combustion (9.9%) or dusts (8.7%).

High risk agents: Agents are defined as high risk if they can be toxic, can build up in the body over time, or are linked to chronic disease (International Labour Organization, 2021). Exposure to assessed high risk agents was as follows:

- Solar UV: 32.4% (about 4.86 million workers), including 21.0% at a medium level and 6.8% at a high level. Exposure is concentrated in outdoor work, including Agriculture, Forestry and Fishing (74.8%) and Construction (67.5%).
- Heat at work: 29.9% (about 4.49 million workers), including 7.2% at a high level and 11.9% at a medium level.
- Diesel engine exhaust: 26.3% (about 3.95 million workers), including 3.7% at a high level. Exposure is concentrated in Agriculture, Forestry and Fishing (72.8%) and Mining (71.5%).
- Silica: 13.6% (about 2.04 million workers), including 5.0% at a high level. Exposure is highest amongst workers in the Construction (71.8%) and Mining (63.8%) industries.

For several high risk agents, exposure is less common overall but remains important because of their health impacts and where exposure is concentrated:

- Lead: 3.8% of workers exposed (about 570,000 workers), including 0.7% at a high level. Exposure is concentrated in a small number of industries and occupations, with likelihood of exposure highest in the Construction industry (19.9% of workers 'probably exposed') and among Construction Trades Workers (38.9% 'probably exposed').
- Welding fumes: 3.7% of workers exposed (about 555,000 workers), including 0.3% at a high level. Exposure incidence is highest in the Manufacturing industry (13.9% of workers 'probably exposed') and among Automotive and Engineering Trades Workers (43.3% probably exposed).
- Asbestos: 2.6% of workers exposed (about 390,000 workers), with 0.8% at a high level and 0.6% at a medium level. Exposure rate is highest in the Mining industry (22.1% of workers 'probably exposed') and among Machine and Stationary Plant Operators (19.6% 'probably exposed').

Exposure combinations: Many workers are exposed to more than one agent. Exposure overlap is particularly strong between solar UV and ocular UV (91.6% and 91.0% overlap). Heat at work also overlaps with multiple agents, including solar UV (64.8%) and ocular UV (64.7%). Workers exposed to styrene commonly experience exposure to diesel exhaust (78.1%), ocular UV (70.2%), heat at work (67.1%), benzene (66.9%) and solar UV (65.2%).

There is also an association between agent exposure, and exposure to psychosocial hazards. Workers exposed to shiftwork and environmental tobacco smoke (including vapes) are more likely to disagree that they have a say in changes at work that affect them (27.7% and 24.4% respectively). Workers exposed to mineral oils are more likely to indicate that they often or always work in a location where they are alone (32.2%), and work requires a lot of concentration (81.9%).

Industries and occupations with multiple exposures: Likelihood of multiple exposures (five or more agents) is highest:

- In the Construction (68.2%), Agriculture, Forestry and Fishing (60.1%) and Mining (60.0%) industries.
- Among Construction Trades Workers (82.1%), Construction and Mining Labourers (81.4%) and Farm, Forestry and Garden Workers (74.6%).

Worker profiles and workplace characteristics: Exposure to certain agents is significantly more common among younger workers and males, as well as workers who worked 55 hours or more per week, live outside capital cities, in more disadvantaged areas (Socio-economic indexes for areas (SEIFA) quintile 1), and who have Advanced Diploma, Diploma or Certificate qualifications.

Apprentices and trainees are more likely to be exposed across many agents, including heat at work (51.1%), silica (35.7%), lead (17.0%) and asbestos (13.7%).

Exposure patterns also vary by job tenure and job satisfaction. Workers who have been in their role longer generally had a higher likelihood of exposure to several chemical and process-related hazards. There was also a higher likelihood of exposure among workers who are less satisfied with their job.

Psychosocial hazards

Psychosocial hazards are those that may cause psychological harm (whether or not it may also cause physical harm). People who are exposed to psychosocial hazards at work are at greater risk of developing a work-related psychological injury, and experiencing poorer mental health outcomes.

Many workers experience job demands all of the time or often, such as requiring a lot of concentration (68.3%), working under tight deadlines or pressure (37.3%), emotionally demanding work (33.9%), the job being physically tiring or strenuous (26.3%), experiencing tension or disagreement with people (16.6%), being exposed to traumatic situations, events or material (13.6%), and verbal abuse, threats or violence (8.9%).

Most workers indicate positive conditions for job clarity and support (94.4% agree they have clarity of duties; 84.0% agree they receive support to work safely). Agreement is lower for autonomy, communication and fairness. The highest disagreement is for influence over organisational change, with 21.8% disagreeing that they have a say in changes that affect them. Disagreement with having a say they have a say in changes that affect them is higher for workers in several public-facing and service settings (including Public Administration and Safety at 35.9%, Transport, Postal and Warehousing at 31.0%, and Retail Trade at 29.7%), and among some occupations (including Protective Service Workers at 45.3%).

Implications

- **Target effort where exposure and multi-exposure are highest (data-led prevention):** Exposure is common (68.0% exposed to at least one hazard agent) and often high-level (28.9%), with multiple exposures concentrated in Construction (25.9% with 5+ exposures) and trade and plant-based occupations. Hazard exposure also often occurs together (for example, with strong overlap between solar UV and ocular UV).
- **Prioritise strategies for agents with high prevalence:** Such as products of combustion (43.2%) and radiation (36.9%), with radiation also having the highest ‘high level’ exposure (10.6%). Prevention efforts should prioritise broad-reaching controls for these common exposures, while also targeting high-intensity exposure settings where the potential for harm is greatest.
- **Harmful substances that cause occupational disease are key focus areas:** These include diesel engine exhaust (26.3% of workers ‘probably exposed’), silica (13.6%), lead (3.8%), welding fumes (3.7%) and asbestos (2.6%). While some of these high risk agents have relatively low exposure overall, concentration is high in some industries and occupations.
- **Psychosocial harm prevention is a system priority:** Many workers experience settings requiring a lot of concentration all of the time or often (68.3%), working under tight deadlines or pressure (37.3%), or emotionally demanding work (33.9%). While most workers responded positively on job clarity and support, 21.8% disagree they have a say in changes that affect them, with higher disagreement in some public-facing and operational settings.

1. Introduction

The 2026 Australian Worker Exposure Survey provides a contemporary, national picture of work-related hazard exposure across the Australian workforce. It shows how common exposure to a range of priority hazards are, where exposure is concentrated, and which groups of workers are most likely to be exposed. This helps target prevention effort and supports risk-based decisions across Australia's WHS system.

AWES 2026 was undertaken at a time of change in work and risk. New technologies, different ways of working, and greater attention to psychosocial hazards are changing what workers are exposed to and how risks are managed. This makes it important to have up-to-date evidence that can be used to prioritise prevention and track change over time.

1.1. Hazards in Australian workplaces

Work-related hazards can arise from the work people do, the environments they work in, and the way work is organised. Some hazards are well known and routinely managed. Others are less visible, may change over time, or may affect workers differently depending on their job and working conditions. Understanding where hazards occur and who is exposed is essential to preventing work-related injury and illness.

This report covers a range of physical, chemical, and psychosocial hazards. Examples include dusts, hazardous substances, heat, ionising and non-ionising radiation, and challenging work demands or organisational factors.

Because workplaces differ across Australia, workers' exposure can vary substantially across industries, occupations and worksites. As work practices, technologies and employment arrangements change, new and emerging hazards may also arise, underscoring the need for ongoing, evidence-based monitoring of exposure.

Australia's WHS framework (Safe Work Australia, n.d.) sets out key principles for managing hazards, including identifying hazards, controlling risks, consulting with workers, and reviewing controls over time. Nationally consistent information about work-related hazard exposure supports these efforts by helping governments, regulators, employers and workers understand where risk is concentrated and focus prevention where it can make the greatest difference to workplace health and safety.

1.2. Overview of the research

AWES 2026 investigates work-related hazard exposure among workers aged 15 years and over in Australia. The research is designed to support prevention-focused WHS action, helping to identify where exposure is most common, and which workers and workplaces may face higher likelihood of exposure. It also provides a baseline for monitoring how exposure patterns change over time as work practices, technologies and employment arrangements evolve. Findings reflect workers' current jobs and working conditions at the time of the survey, which was conducted between December 2025 and February 2026.

1.3. Scope

The research focuses on Australian workers' probable exposure to a range of priority work-related hazards. The study covers a wide range of industries, occupations and employment arrangements. In this report, a 'worker' is someone who has done work duties in the 7 days before completing the survey.

The methodology used for AWES 2026 is presented in detail in Appendix 1.

1.4. Research objectives

The AWES is designed to improve what we know about work-related hazard exposure in Australia and support prevention-focused WHS action. The objectives are to:

- **Assess how common work-related hazard exposure is** across the Australian workforce, for a range of priority hazards.
- **Show how exposure differs across workers and workplaces**, including by industry, occupation and worker characteristics, to identify where exposure is concentrated.
- **Provide a baseline for monitoring change over time**, so future surveys can track trends in work-related hazard exposure.

1.5. Reading this report

1.5.1 How to interpret the findings

This report provides a national snapshot of probable work-related hazard exposure at the time of the survey. The findings reflect workers' experiences in the week prior to the survey in their current main job. They do not measure lifetime exposure, exposure in all jobs, or how exposure changes over time.

This study has not obtained measurements of actual exposure. Where the term 'exposure' is used, it refers to OccIDEAS exposure assessments, or the prevalence of self-reported exposure to psychosocial or other hazards from responses to survey questions. Throughout the report, the term 'exposure' refers to any level of probable exposure to an agent, unless a level is specified.

The exposure levels show not only how many workers encounter a given agent, but also the potential severity and risk profile associated with that exposure. Low level exposure may reflect intermittent or incidental contact. Medium and high levels indicate more sustained or intensive exposure. These levels can help identify where prevention efforts may need to focus.

Results are designed to support comparisons between groups. The report pays particular attention to industries, occupations and work environments where exposure is more common or may be of greater potential WHS concern. The findings are not a detailed assessment of risk in individual workplaces.

Weighting

Survey results are weighted to represent the Australian working population. Weighting adjusts the sample data so the results reflect the workforce overall, not just the people who responded to the survey, and helps to account for factors such as differential response rates across demographic and employment groups.

Weights were calculated using population benchmarks for key workforce characteristics (such as age, gender and location). This improves confidence that the reported estimates provide a reliable national picture of work-related hazard exposure.

Rounding

Percentages in the charts or tables may not always add to 100% due to rounding.

Totals

Survey results relating to aggregated metrics are often reported as 'Total' scores, for example 'Total agreement' (combining 'agree' and 'strongly agree') or 'Total disagreement' (combining 'disagree' and 'strongly disagree') throughout, unless otherwise specified.

The term 'any exposure' is used throughout the report to denote aggregated exposure levels, combining probable low, medium, high and probable but unknown exposure levels.

Significance testing

Where results are compared across subgroups (for example, by industry, occupation or worker characteristics), column comparison significance testing has been used to identify statistically meaningful differences. This testing assesses whether differences between column percentages are likely to reflect real differences in the broader worker population, rather than chance variation due to sampling.

Statistically significant differences are identified at the 95% confidence level ($p<0.05$). Where a result is statistically significant, this indicates that the observed difference between groups is unlikely to have occurred by chance and should be interpreted as a meaningful difference in exposure or experience.

Subgroups used for analysis

The subgroups used for analysis in this report include:

- Gender
- Age
- Region (work)
- State or territory (residential)
- Use a language other than English at home
- Self-assessed health rating
- Education level
- Income
- Industry (ANZSIC Main) (Australian Bureau of Statistics, 2013)
- Occupation (ANZSCO Major groups) (Australian Bureau of Statistics, 2022)
- Occupation (ANZSCO Sub-major groups)
- Job tenure
- Payment type
- Work location

Key agent groupings

Throughout the report, individual agents have been grouped into broader ‘agent groups’ as detailed in Table 1.

The survey covered these agents, as well as psychosocial hazards (see section 2.2), as they were identified as priorities through a consultation process with WHS experts, researchers and other stakeholders.

Table 1 OccIDEAS agent groupings

Agent grouping	OccIDEAS Agents
Chemicals	• 1,3-butadiene • Acrylamide • Diethyl/dimethyl sulphate • Epichlorohydrin • Ethylene oxide • Formaldehyde • Ortho-toluidine • PCBs (polychlorinated biphenyls) • Mineral oils • Nitrosamines

Agent grouping	OccIDEAS Agents
	• Styrene • Vinyl chloride • Isocyanates • Acid mists • MOCA (4,4'-Methylenebis(2-chloroaniline))
Solvents	• Benzene • Trichloroethylene • Tetrachloroethylene (PERC)
Metals	• Arsenic • Chromium VI • Cobalt • Lead • Cadmium • Nickel • Beryllium
Dusts	• Silica • Leather dust • Wood dust • Asbestos
Products of combustion	• Diesel exhaust • Bushfire smoke • Environmental tobacco smoke incl. vapes • Welding fumes • Other PAHs (polycyclic aromatic hydrocarbons)
Radiation (ionising and non-ionising)	• Artificial UV • Solar UV • Ocular UV • Ionising radiation
Heat	• Heat at work
Shiftwork	• Shiftwork between midnight and 5am

2. Key findings

2.1. Hazard exposure

Work-related hazard exposure is widespread across the Australian workforce. This section provides a national snapshot of how many workers are exposed to a selection of priority agents and the relative level of that exposure. It also shows where exposure is most common across industries, occupations and work settings. The report is broken into sections focusing on:

- agents assessed using OccIDEAS,
- psychological hazards assessed using a survey module that was developed for AWES 2026, based on the Safe Work Australia Model Code of Practice: Managing psychosocial hazards at work, and the interaction between hazard type (Safe Work Australia, 2022).

In this report, 'agents' are the groups of hazards assessed in the survey using OccIDEAS (refer Table 1). For agents assessed through OccIDEAS, results are shown for 'any exposure' and, where available, for low, medium and high levels of exposure. For psychosocial hazards, exposure was measured by asking the extent to which participants agreed with a range of statements, or how frequently they experienced a range of different situations at work.

2.1.1 Agent prevalence

Two-thirds (68.0%) of workers experienced probable exposure to at least one agent at work. If applied to the national workforce, this suggests about 10.2 million workers may have been exposed to at least one agent assessed through the AWES[2].

Looking at exposure level, 28.9% of workers were exposed to at least one agent at a high level. A further 17.1% were exposed at a medium level and 22.0% at a low level.

Table 2 Highest level of exposure to any agent

Exposure level (any agent)	Proportion (%)
Probable exposure – any level	68.0%
High probable exposure	28.9%
Medium probable exposure	17.1%
Low probable exposure	22.0%

Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

2.1.2 Levels of exposure to agents

This section shows workers' probable level of exposure to agents assessed through the 2026 AWES. The levels are low, medium and high with exposure based on the intensity, frequency and context of exposure in the workplace.

These exposure levels show not only how many workers encounter a given agent, but also the potential severity and risk profile associated with that exposure. Low level exposure may reflect intermittent or incidental contact. Medium and high levels indicate more sustained or intensive exposure. These levels can help identify where prevention efforts may need to focus. More information on the methodology used for exposure assessment is provided in Appendix 1.

[2] Based on around 15.0 million employed people in Australia in the ABS Labour Account, December quarter 2025.

Table 3 shows that, although the proportions of workers exposed to solar UV and ocular UV are similar overall (32.4% and 32.6% of workers exposed, respectively), the most common exposure *level* differs. For solar UV, the most common exposure *level* is medium (21.0% of all workers). For ocular UV, the most common exposure *level* is low (20.0% of all workers, out of 32.6% overall).

Over two in five workers have probable exposure to at least one product of combustion. This was mainly diesel exhausts (26.3% of workers) and environmental tobacco smoke, including vapes (25.8%).

Smaller proportions of exposure to other PAHs (polycyclic aromatic hydrocarbons; 5.3%), welding fumes (3.7%) and bushfire smoke (0.5%) were observed. Although the number of workers exposed to bushfire smoke was small, all exposures were at medium (0.2%) or high levels (0.3%).

Silica (13.6%) and wood dust (8.2%) are the most common dust exposures. However, the most common exposure level differs. Silica exposure is most commonly assessed as low level (6.2%) in the survey results, whereas wood dust exposure is most commonly assessed at a high level (5.2%).

Exposure to chemicals is less common than exposure to other agents, except for styrene (9.1%) and formaldehyde (6.5%). Among workers exposed to formaldehyde, more than one in three (2.3% out of 6.5%) experienced exposure at high levels.

Table 3 Key agents grouped by category: levels of exposure

Category	OccIDEAS hazard agent	No exposure	Exposure at any level	Probably exposed (low)	Probably exposed (medium)	Probably exposed (high)
Chemicals	Styrene	90.1%	9.1%	5.1%	4.1%	0%
	Formaldehyde	93.5%	6.5%	1.8%	2.4%	2.3%
	Ethylene-oxide	98.1%	1.9%	0.5%	0.7%	0.6%
	Isocyanates	99.2%	0.8%	0.6%	0%	0.2%
	1,3-butadiene	99.6%	0.4%	0.4%	0.05%	0%
	Acid-mists	99.6%	0.4%	0.08%	0.3%	0%
	Vinyl-chloride	99.9%	0.07%	0.07%	0%	0%
	PCBs	99.9%	0.07%	0.07%	0%	0%
	Diethyl/dimethyl-sulphate	99.9%	0.07%	0.07%	0%	0%
	Ortho-toluidine	99.9%	0.07%	0.01%	0.03%	0.02%
	Nitrosamines	99.9%	0.06%	0.00%	0%	0.06%
	Acrylamide	99.9%	0.06%	0.04%	0.02%	0%
	Epichlorohydrin	100.0%	0.02%	0.02%	0%	0%

Category	OccIDEAS hazard agent	No exposure	Exposure at any level	Probably exposed (low)	Probably exposed (medium)	Probably exposed (high)
	Mineral oils	98.4%	1.6%	0.3%	1.3%	0.01%
	MOCA	100.0%	0%	0%	0%	0%
Solvents	Benzene	69.0%	31.0%	25.4%	1.9%	3.6%
	Trichloroethylene	99.4%	0.6%	0.1%	0.2%	0.3%
	Tetrachloroethylene (PERC)	99.7%	0.2%	0%	0.05%	0.2%
Metals	Chromium VI	94.3%	5.7%	2.4%	2.3%	0.9%
	Lead	96.2%	3.8%	1.3%	1.8%	0.7%
	Nickel	97.1%	2.9%	0.8%	1.3%	0.8%
	Cadmium	98.4%	1.6%	0.3%	1.1%	0.2%
	Arsenic	98.8%	1.2%	0.7%	0.3%	0.1%
	Cobalt	99.3%	0.7%	0.1%	0.4%	0.2%
	Beryllium	99.7%	0.3%	0.1%	0.1%	0.02%
Dusts	Silica	86.4%	13.6%	6.2%	2.4%	5.0%
	Wood dust	91.8%	8.2%	1.1%	2.0%	5.2%
	Asbestos	97.3%	2.6%	0.9%	0.6%	0.8%
	Leather dust	100.0%	0.02%	0.02%	0%	0%
Products of combustion	Diesel exhaust	73.7%	26.3%	11.8%	10.8%	3.7%
	Environmental tobacco smoke incl. vapes	74.2%	25.8%	20.5%	0%	5.3%
	Bushfire smoke	99.5%	0.5%	0%	0.2%	0.3%
	Welding fumes	96.3%	3.7%	1.5%	1.9%	0.3%
	Other PAHs	94.6%	5.3%	2.0%	2.0%	1.4%

Category	OccIDEAS hazard agent	No exposure	Exposure at any level	Probably exposed (low)	Probably exposed (medium)	Probably exposed (high)
Radiation	Ocular UV	67.4%	32.6%	20.0%	6.2%	6.4%
	Solar UV	67.6%	32.4%	4.7%	21.0%	6.8%
	Artificial UV	96.1%	3.9%	1.6%	1.5%	0.7%
	Ionising radiation	97.3%	2.7%	1.0%	1.3%	0.4%
Heat	Heat at work	70.1%	29.9%	10.9%	11.9%	7.2%
Shiftwork	Shiftwork	91.8%	8.2%	3.6%	2.2%	2.4%

Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Note: Epichlorohydrin and Leather dust both recorded 0.02% of workers exposed, however 'no exposure' is shown as 100.0% due to rounding.

Dusts

As shown in Table 4, silica (13.6%) is the most common exposure within the dust agent group. This is followed by wood dust (8.2%), asbestos (2.6%), and leather dust (0.02%).

Exposure levels vary by dust type. Although wood dust exposure is low overall, at 8.2%, most exposure occurs at a high level (5.2%). High level exposure to wood dust is most common in the Construction industry (22.7%), followed by the Agriculture, Forestry and Fishing industry (19.6%), and the Administrative and Support Services industry (16.7%).

Table 4 Dusts (%)

Category	OccIDEAS agent	No exposure	Exposure at any level	Probably exposed (low)	Probably exposed (medium)	Probably exposed (high)
Dusts	Silica	86.4%	13.6%	6.2%	2.4%	5.0%
	Wood dust	91.8%	8.2%	1.1%	2.0%	5.2%
	Asbestos	97.3%	2.6%	0.9%	0.6%	0.8%
	Leather dust	100.0%	0.02%	0.02%	0%	0%

Base: All respondents (n=6,617)
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey

Note: Leather dust recorded 0.02% of workers exposed, however 'no exposure' is shown as 100.0% due to rounding.

Metals

Overall, exposure to metals is less common than exposure to many other agent groups. Chromium VI (5.7%) is the most common metal exposure, followed by lead (3.8%) and nickel (2.9%). Smaller proportions of workers were exposed to cadmium (1.6%), arsenic (1.2%), cobalt (0.7%), and beryllium (0.3%).

For most metals, exposure is more commonly assessed at low or medium levels. High level exposure is most commonly assessed for chromium VI, however the frequency is still low at 0.9%.

High level exposure to chromium VI is most common in the Agriculture, Forestry and Fishing (4.6%), Manufacturing (3.2%) and Mining (2.8%) industries.

Table 5 Metals (%)

Category	OccIDEAS agent	No exposure	Exposure at any level	Probably exposed (low)	Probably exposed (medium)	Probably exposed (high)
Metals	Chromium VI	94.3%	5.7%	2.4%	2.3%	0.9%
	Lead	96.2%	3.8%	1.3%	1.8%	0.7%
	Nickel	97.1%	2.9%	0.8%	1.3%	0.8%
	Cadmium	98.4%	1.6%	0.3%	1.1%	0.2%
	Arsenic	98.8%	1.2%	0.7%	0.3%	0.1%
	Cobalt	99.3%	0.7%	0.1%	0.4%	0.2%
	Beryllium	99.7%	0.3%	0.1%	0.1%	0.02%

Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Chemicals

Exposure to chemicals is less common than exposure to many other agent groups. The most common chemical exposures were styrene (9.1% of workers) and formaldehyde (6.5%). This is followed by ethylene oxide (1.9%) and mineral oils (1.6%). Fewer than one per cent of all workers were assessed as having ‘any exposure’ to each of the remaining chemical agents.

Exposure levels vary by chemical. Approximately one third of the 6.5% of workers exposed to formaldehyde had a high level of exposure (2.3%). High level exposure to formaldehyde is concentrated in industries such as construction (9.3%), manufacturing (5.3%), and wholesale trade (4.2%).

In contrast, exposure to styrene (9.1%) is exclusively low (5.1%) and medium (4.1%), with no high level exposure assessed.

Exposure to chemicals can therefore represent quite different risk profiles for workers, depending on the agent.

Table 6 Chemicals (%)

Category	OccIDEAS agent	No exposure	Exposure at any level	Probably exposed (low)	Probably exposed (medium)	Probably exposed (high)
Chemicals	Styrene	90.1%	9.1%	5.1%	4.1%	0%
	Formaldehyde	93.5%	6.5%	1.8%	2.4%	2.3%
	Ethylene-oxide	98.1%	1.9%	0.5%	0.7%	0.6%
	Mineral oils	98.4%	1.6%	0.3%	1.3%	0.01%
	Isocyanates	99.2%	0.8%	0.6%	0%	0.2%

Category	OccIDEAS agent	No exposure	Exposure at any level	Probably exposed (low)	Probably exposed (medium)	Probably exposed (high)
	1,3-butadiene	99.6%	0.4%	0.4%	0.05%	0%
	Acid-mists	99.6%	0.4%	0.08%	0.3%	0%
	Vinyl-chloride	99.9%	0.07%	0.07%	0%	0%
	PCBs	99.9%	0.07%	0.07%	0%	0%
	Diethyl/dimethyl-sulphate	99.9%	0.07%	0.07%	0%	0%
	Ortho-toluidine	99.9%	0.07%	0.01%	0.03%	0.02%
	Nitrosamines	99.9%	0.06%	0.00%	0%	0.06%
	Acrylamide	99.9%	0.06%	0.04%	0.02%	0%
	Epichlorohydrin	100.0%	0.02%	0.02%	0%	0%
	MOCA	100.0%	0%	0%	0%	0%

Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Note: Epichlorohydrin recorded 0.02% of workers exposed, however 'no exposure' is shown as 100.0% due to rounding.

Products of combustion

Exposure to products of combustion is relatively common overall. The highest prevalence is for diesel exhaust (26.3%) and environmental tobacco smoke (including vapes) (25.8%). Exposure to other PAHs (5.3%) and welding fumes (3.7%) is lower and bushfire smoke (0.5%) is relatively rare.

Exposure levels differ notably between agents. Exposure to diesel exhaust is most common at low (11.8%) and medium (10.8%) levels, with a smaller proportion of workers assessed as experiencing higher level exposure (3.7%). Exposure to environmental tobacco smoke (including vapes) is most commonly observed at low levels (20.5%), with some workers exposed at high levels (5.3%).

High level exposure to diesel exhaust is concentrated in industries such as Mining (16.2%), Electricity, Gas, Water and Waste Services (12.0%), and Transport, Postal and Warehousing (10.5%), while environmental tobacco smoke, including vapes is concentrated in the Construction (10.8%), Accommodation and Food Services (9.7%) and Mining (8.7%) industries.

Table 7 Products of combustion (%)

Category	OccIDEAS agent	No exposure	Exposure at any level	Probably exposed (low)	Probably exposed (medium)	Probably exposed (high)
Products of Combustion	Diesel exhaust	73.7%	26.3%	11.8%	10.8%	3.7%
	Environmental tobacco smoke incl. vapes	74.2%	25.8%	20.5%	0%	5.3%
	Welding fumes	96.3%	3.7%	1.5%	1.9%	0.3%

Category	OccIDEAS agent	No exposure	Exposure at any level	Probably exposed (low)	Probably exposed (medium)	Probably exposed (high)
	Bushfire smoke	99.5%	0.5%	0%	0.2%	0.3%
	Other PAHs	94.6%	5.3%	2.0%	2.0%	1.4%

Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Heat at work

Three in ten workers (29.9%) were exposed to heat at work. Heat exposure most commonly occurs at medium (11.9%) and low (10.9%) levels, with a substantial number of workers who also experienced heat at a high level (7.2%).

High level exposure to heat at work is most commonly experienced by workers in industries such as Mining (22.4%), Manufacturing (14.3%) and Construction (14.2%).

It should be noted that the AWES 2026 survey was conducted during the Australian summer, which may have influenced the level of occupational heat exposure observed.

Table 8 Heat (%)

Category	OccIDEAS agent	No exposure	Exposure at any level	Probably exposed (low)	Probably exposed (medium)	Probably exposed (high)
Heat	Heat at work	70.1%	29.9%	10.9%	11.9%	7.2%

Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Ionising and non-ionising radiation

Some types of radiation exposure are relatively common. The most common exposures are ocular UV (32.6%) and solar UV (32.4%) with each affecting about one-third of all workers. In contrast, exposure to artificial UV (3.9%) or ionising radiation (2.7%) is much less prevalent.

Although exposure to solar and ocular UV is similarly common overall, exposure levels differ by UV type. Solar UV is most commonly observed at a medium level (21.0%), with smaller proportions of workers experiencing high level exposure (6.8%) or low level exposure (4.7%). Ocular UV most commonly occurs at low levels (20.0%), with exposure less common at the medium and high level (6.2% and 6.4%, respectively).

High level exposure to solar UV is most commonly experienced by workers in industries such as Rental, Hiring and Real Estate Services (19.0%), Construction (14.2%) and Transport, Postal and Warehousing (11.6%). High level exposure to ocular UV is concentrated in industries such as Agriculture, Forestry and Fishing (20.8%), Construction (12.2%), and Rental, Hiring and Real Estate Services (8.7%).

Table 9 Ionising and non-ionising radiation (%)

Category	OccIDEAS agent	No exposure	Exposure at any level	Probably exposed (low)	Probably exposed (medium)	Probably exposed (high)
Radiation	Ocular UV	67.4%	32.6%	20.0%	6.2%	6.4%
	Solar UV	67.6%	32.4%	4.7%	21.0%	6.8%
	Artificial UV	96.1%	3.9%	1.6%	1.5%	0.7%
	Ionising radiation	97.3%	2.7%	1.0%	1.3%	0.4%

Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Solvents

Benzene is the most common solvent exposure (31.0%). Fewer workers have probable exposure to trichloroethylene (0.6%), and tetrachloroethylene/PERC (0.2%).

Benzene exposure is typically at a low level (25.4%), with smaller proportions of workers having medium (1.9%) and high (3.6%) exposure levels.

High level benzene exposure is most common in industries such as Agriculture, Forestry and Fishing (17.6%), Rental, Hiring and Real Estate Services (7.5%) and Transport, Postal and Warehousing (7.1%).

The other solvent agents are uncommon overall. Where exposure occurs, it represents a much smaller contribution to solvent exposure across the workforce.

Table 10 Solvents (%)

Category	OccIDEAS agent	No exposure	Exposure at any level	Probably exposed (low)	Probably exposed (medium)	Probably exposed (high)
Solvents	Benzene	69.0%	31.0%	25.4%	1.9%	3.6%
	Trichloroethylene	99.4%	0.6%	0.1%	0.2%	0.3%
	Tetrachloroethylene (PERC)	99.7%	0.2%	0.0%	0.05%	0.2%

Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

2.2. Psychosocial hazards

A psychosocial hazard is anything that could cause psychological harm (e.g. harm someone's mental health).

Psychosocial hazards may interact or combine to create new, changed or higher risks. It is important to consider all the psychosocial hazards workers may be exposed to when managing psychosocial risks.

Some hazards may not create psychosocial risks on their own but may do so if combined with other hazards. For example, when workloads are high the risk may increase if workers cannot take breaks or there is no one around to help.

Psychosocial hazards at work include:

- job demands
- low job control
- poor support
- lack of role clarity
- poor organisational change management
- inadequate reward and recognition
- poor organisational justice
- traumatic events or material
- remote or isolated work
- poor physical environment
- violence and aggression
- bullying
- harassment, including sexual and gender-based harassment, and
- conflict or poor workplace relationships and interactions.

In the AWES, workers were asked the extent to which they agreed with a range of statements, and how frequently they experienced a range of different situations at work, framed around the psychosocial hazards listed above, drawn from the model Code of Practice: Managing psychosocial hazards at work (Safe Work Australia, 2022). This methodology differs from the OccIDEAS exposure assessment used for the agents covered elsewhere in this report. More information is available in Appendix 1.

2.2.1 Psychosocial hazards: support, clarity and agency

When asked about their agreement or disagreement with statements about support, clarity and agency at work, most workers report positive conditions for clarity and support. Agreement was evaluated by combining those who agree and strongly agree with each statement.

Agreement is highest for clarity of duties and responsibilities, with 94.4% of workers agreeing that they are clear on their duties and responsibilities at work. Similarly, over four in five agree that they receive the support needed to work safely (84.0%) and to perform their job well (82.2%).

Agreement is lower for statements such as:

- 'I have a say in how and when my work is done', (71.8%), 'I feel informed about changes at work (70.0%), and 'In my organisation, people are treated fairly' (69.9%), with around seven in ten workers agreeing.

Statements with the lowest agreement levels include:

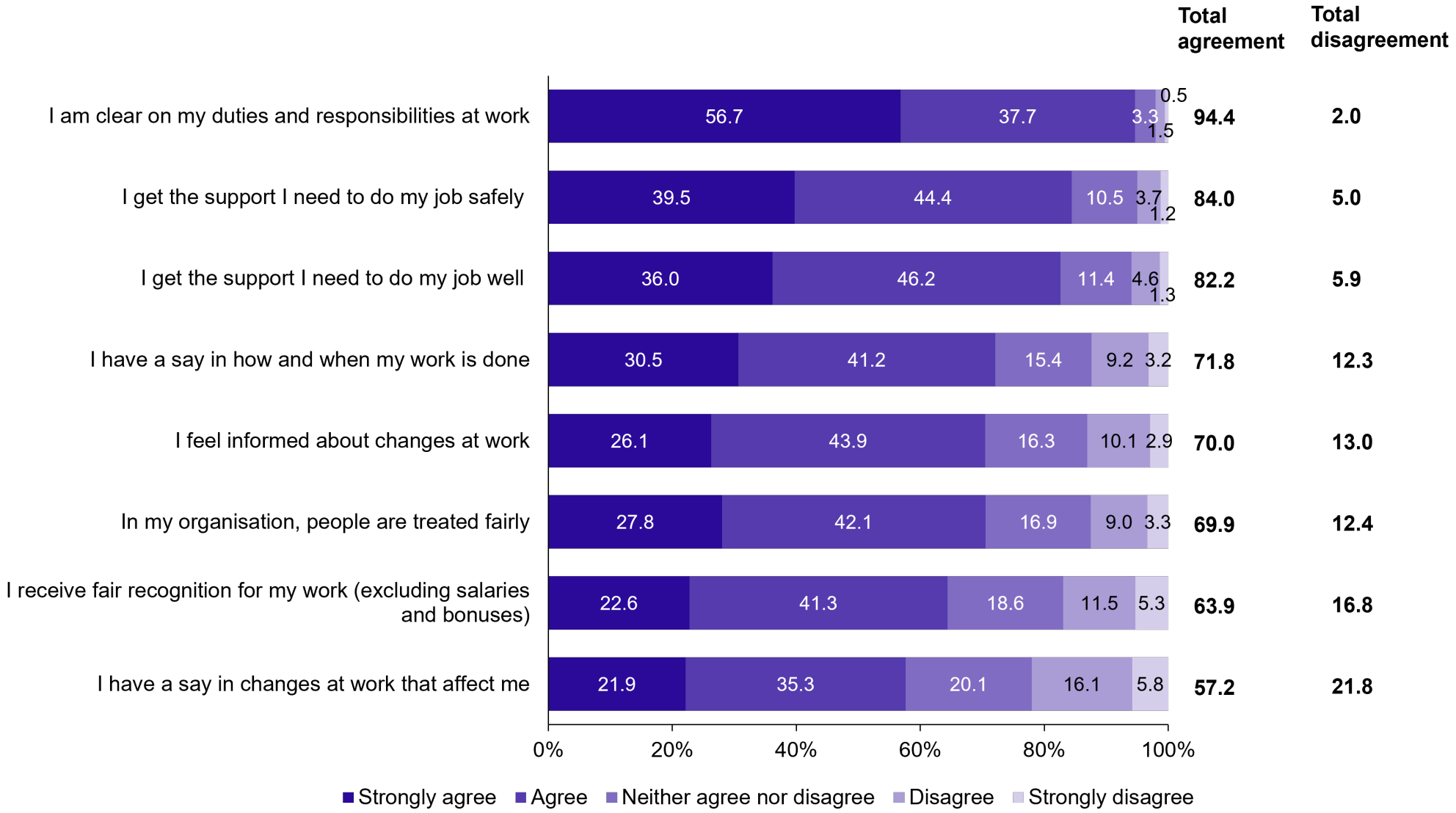
- ‘I receive fair recognition for my work’, with 63.9% of workers agreeing.
- ‘I have a say in changes at work that affect me’, with 57.2% of workers agreeing.

Workers most impacted by psychosocial hazards related to support, clarity and agency

At a total level, workers who were most likely to disagree or strongly disagree with any of the statements related to support, clarity and agency (shown in Figure 1) at work were:

- Women (40.1% vs 33.5% of men).
- Those aged 24 or under (43.6% vs 35.6% of those aged 25 or older).
- Those who do not use a language other than English at home (37.5% vs 33.6% of those who do).
- Those who feel dissatisfied or very dissatisfied with their job (79.8%).
- Those with a mental health condition (48.4%).
- Those who mainly work in the following locations:
  - A warehouse (43.4%)
  - Travelling (47.7%)
  - Shop or retail outlet (45.2%)
  - School, TAFE or university (49.5%).
- Those who work in the following occupations (ANZSCO major groups):
  - Sales workers (49.4%)
  - Machinery Operators and Drivers (48.4%)
  - Community and Personal Service Workers (41.8%).
- Those who work in the following industries:
  - Transport, Postal and Warehousing (49.6%)
  - Public Administration and Safety (49.1%)
  - Accommodation and Food Services (45.5%)
  - Retail trade (44.6%)
  - Education and Training (43.7%).

Figure 1 Levels of psychosocial hazards: support, clarity and agency



Base: Total (n=6,617).
Source: HAZ1. The next statements are about the work you do, the people you work with, and your organisation. How strongly do you agree or disagree that each is true of you?

Note: Don't know (all <1%) and Refused (all <0.5%) not shown on chart.

Subgroup differences for statement: ‘I have a say in changes at work that affect me’

For the item with highest disagreement, ‘I have a say in changes at work that affect me’ (21.8% either slightly disagreed or disagreed), there are significant differences across demographic and workplace groups. Lack of perceived influence over workplace change is concentrated among workers in manual or operational roles, and those in more disadvantaged socio-economic circumstances.

Disagreement varies by demographics:

- **Gender:** higher among women (25.2%) than men (18.5%).
- **Age**: all workers, particularly those aged 25–34 years (22.9%) and 55–64 (22.9%) report higher disagreement than workers aged 65 years and over (12.0%).
- **Language spoken at home:** higher among workers who use a language other than English at home (22.6%), versus those who use only English at home (18.7%).
- **Work environment:** higher in education settings (31.9%), travelling for work (28.7%), and shop/retail environments (28.0%) compared to environments such as working from home (17.7%), outdoors (15.7%), and construction sites (13.9%).

Workers in service-oriented, operational and public-facing industries are more likely to report disagreement than those in professional or primary industries.

Disagreement varies by industry:

- **Higher in:** Public Administration and Safety (35.9%), Transport, Postal and Warehousing (31.0%), Retail Trade (29.7%), and Education and training (26.8%). **Lower in:** Agriculture, Forestry and Fishing (5.8%), Construction (13.1%), and Administrative and Support Services (14.6%).

Disagreement varies by occupation (ANZSCO sub-major):

- **Highest among:** Protective Service Workers (45.3%), Inquiry Clerks and Receptionists (39.4%), and Clerical and Administrative Workers (38.2%).
- These roles are often manual, shift-based, or tightly controlled, with more limited influence over workplace changes.
- **Lowest among:** Chief Executives, General Managers and Legislators (7.0%), Managers (10.1%), and Skilled Animal, Agricultural and Horticultural Workers (10.2%).

2.2.2 Psychosocial hazards: help, physical discomfort and lone work

One in ten (12.3%) workers believe that it would be hard to get help at work often or all the time, followed by 11.7% of workers indicating they always or often work in unpleasant physical conditions, such as uncomfortable spaces, lighting, temperature, noise or smells. In addition, one in six respondents indicated they often or always work in locations where they are alone (16.4%).

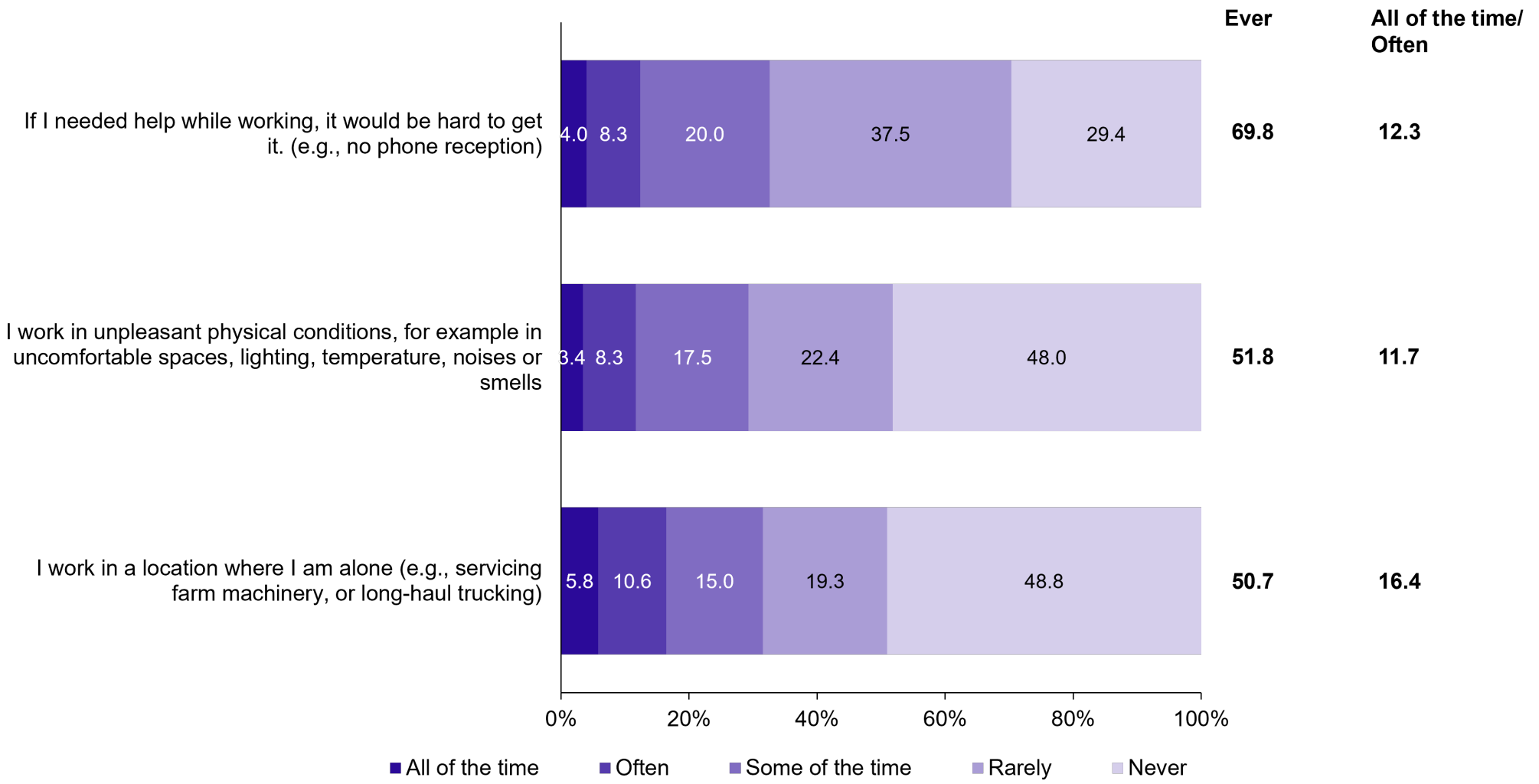
Workers most impacted by psychosocial hazards related to help, physical discomfort, and lone work

At a total level, workers who were most likely to answer ‘all of the time’ or ‘often’ to any of the statements related to help, physical discomfort, and lone work (as shown in Figure 2) were:

- Men (33.7% vs 24.1% of women)
- Those who live in regional areas (33.7% vs 26.5% of those living in a capital city).
- Those who only use English at home (30.2% vs 24.4% of those who use another language at home).
- Those in SEIFA quintile 1 – most disadvantage (34.3%) vs those in quintile 2 (26.7%), 3 (28.6%) or 5 – least disadvantage (26.9%).

- Those with an Advanced Diploma, Diploma or Certificate (33.1%) vs those with a Year 12 or below (26.2%), a Bachelor degree (27.4%) or Postgraduate level of education (24.9%).
- Apprentices or trainees (41.5% vs 28.4% of those who are not).
- Those who feel dissatisfied or very dissatisfied with their job (43.0%).
- Those who work in the following locations:
  - Outdoors (49.0%)
  - Travelling (48.6%)
  - Another home, such as an employer's or client's home (41.5%).
- Those who work in the following occupations (ANZSCO major groups):
  - Machinery Operators and Drivers (45.8%)
  - Labourers (39.7%)
  - Technicians and Trades Workers (39.2%).
- Those who work in the following industries:
  - Agriculture, Forestry and Fishing (49.6%)
  - Electricity, Gas, Water and Waste Services (42.9%)
  - Mining (44.9%)
  - Transport, Postal and Warehousing (41.2%).

Figure 2 Levels of psychosocial hazards: help, physical discomfort, and lone work



Base: Total (n=6,617).
Source: HAZ2. Thinking now about your work environment, how often do you feel each of these statements is true for you?

Note: Don't know (all <1%) and Refused (all <0.5%) not shown on chart.
Ever: all of the time, often, some of the time, and rarely.

Subgroup differences for statement: ‘I work in a location where I am alone’

The proportion of workers who report, ‘I work in a location where I am alone’, often or all of the time, differs significantly across demographic groups. Frequent lone working is concentrated among male, older, regional and long-tenured workers. This pattern is also observed among workers more likely to work from home, travel for work, or work outdoors.

Workers who report often or always working alone are predominantly:

- **Gender:** Men are more likely than women to report working alone often or all of the time (18.8% vs 13.8%).
- **Age:** Working alone is significantly more common among older workers, peaking among those aged 65 years and over (20.3%) and 55–64 years (19.5%), compared with workers under 25 years (10.6%).
- **Location:** Workers outside capital cities (20.7%) are significantly more likely to work alone than those in capital cities (14.3%).
- **Tenure:** Working alone is more common among workers with longer tenure, particularly those employed for more than 10 years (19.1%), compared with those employed for less than 12 months (12.3%).
- **Work environment:** Working alone is significantly higher among workers mainly working at home (38.5%), travelling for work (36.3%), and working outdoors (31.4%), compared with those working within hospital or medical centre (7.0%), an education setting (7.3%), and restaurant, kitchen, or café (6.8%).

Working alone varies by industry:

- **Highest (often or all of the time):** Agriculture, Forestry and Fishing (35.1%).
- **Also high in:** Administrative and Support Services (26.3%) and Transport, Postal and Warehousing (25.7%).
- **Least common:** Public Administration and Safety (12.9%), Education and Training (8.9%), and Accommodation and Food Services (7.4%).

Working alone varies by occupation (ANZSCO sub-major):

- **Highest among:** Farmers and Farm Managers (45.5%), Road and Rail Drivers (43.5%), and Cleaners and Laundry Workers (35.5%).
    - These roles reflect agricultural, driving, and machinery-based work, where solitary tasks are more common.
- **Lower levels observed in:** Automotive and Engineering Trades Workers (10.7%), Sales Assistants and Salespersons (8.4%), and Education Professionals (6.1%).
    - These roles typically involve team-based work, shared environments, or ongoing interaction with others.

2.2.3 Psychosocial hazards: cognitive and emotional demands, and experiences of hostile behaviour

Figure 3 shows workers agreement with a series of statements about cognitive and emotional demands, and experiences of hostile behaviours at work.

High job demands become a hazard when severe, prolonged, or frequent. Low job demands can also become a hazard when severe, prolonged or frequent.

Nearly all Australian workers report that their job requires a high level of concentration (98.1%) at least some of the time. Nine in ten (90.9%) say that they work under tight deadlines or pressure at least some of the time. Emotional demands are also common, with 88.3% reporting they have faced emotional demands at work. Additionally, 83.0% report experiencing tension or disagreements at work with customers, clients, coworkers or other businesses. Physical demands are also common, with four in five (80.0%) indicating their job is at times physically tiring or strenuous.

More adverse experiences or exposure are also notable. Around two-thirds (63.6%) report exposure to traumatic situations, events or material at work. This was most common for:

- Workers in Health Care and Social Assistance (32.3%) and Public Administration and Safety (26.9%) industries
- People working as Protective Service Workers (60.3%) and Legal, Social and Welfare Professionals (50.5%).

Half (50.4%) report having experienced verbal abuse, threats or violence. Workers who more commonly reported experiencing verbal abuse, threats or violence often or all the time included:

- Women (52.5% compared to 48.6% of men)
- People aged 24 or under (10.9%) or 25–34 (12.0%) years compared to those aged 45 or older (6.6%).
- Workers in the Health Care and Social Assistance (14.5%) and Public Administration and Safety (15.5%) industries.
- People who work as Protective Service Workers (39.4%).

Harassment and bullying are reported by significant proportions of workers. Four in ten respondents report other forms of harassment (40.5%) or bullying (38.8%), while one in five (20.0%) report having experienced sexual harassment. Experiencing other forms of harassment often or all the time was most common among:

- People aged 24 or under (8.2%) or 25–34 (7.6%) years compared to those aged 45 or older (3.6%).
- People who work as Protective Service Workers (17.9%).

Workers most impacted by psychosocial hazards related to cognitive and emotional demands, and experiences of hostile behaviour

At a total level, workers who were most likely to answer ‘all of the time’ or ‘often’ to any of the statements related to cognitive and emotional demands, and experiences of hostile behaviour were:

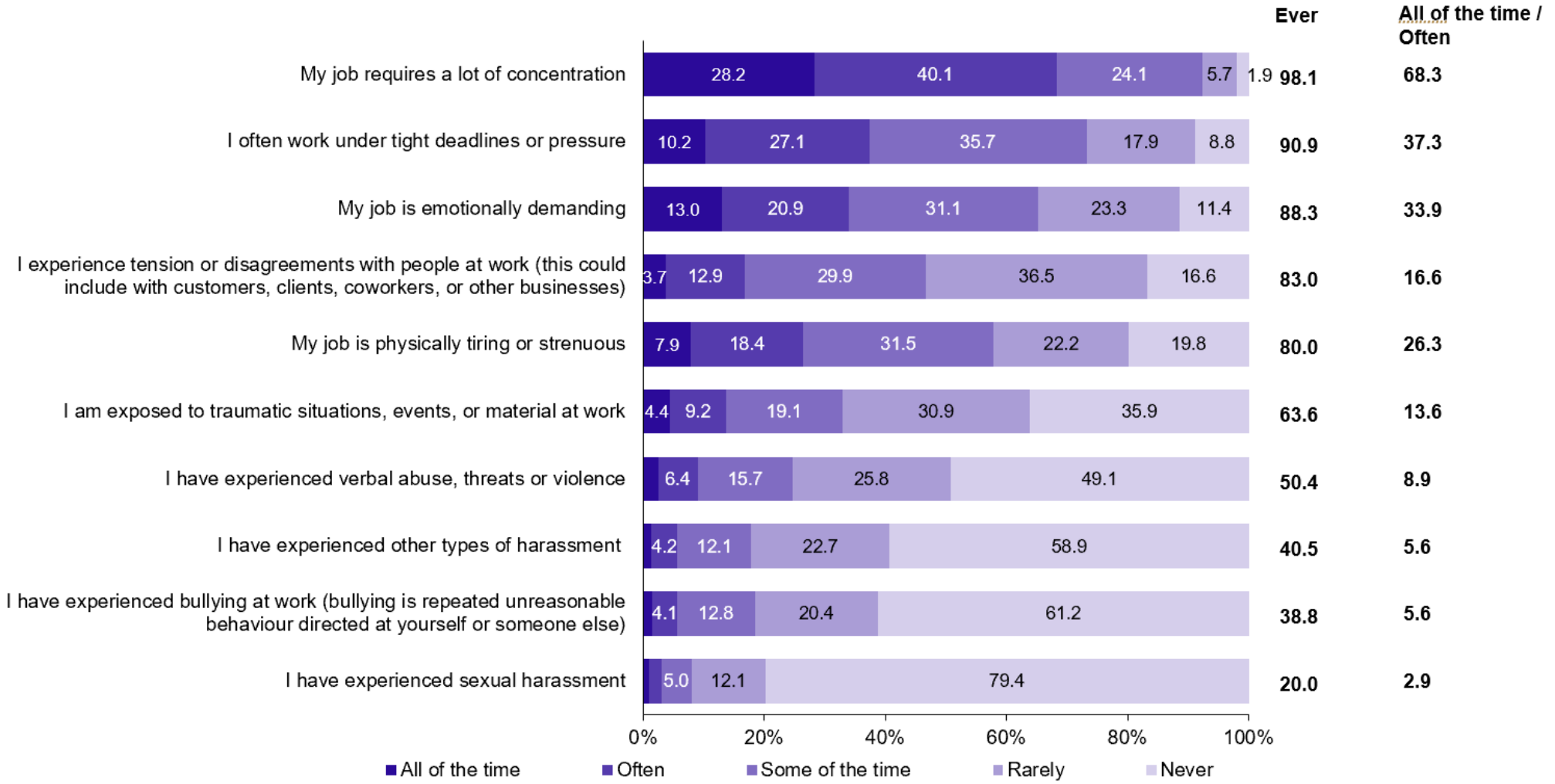
- Those aged 25–34 years (84.4%) and 35–44 years (83.5%) compared to those aged 24 or younger (75.5%) or 65 or older (75.2%).
- Those employed for more than 12 months (82.7% vs 76.5% of people employed for less than 12 months).
- Those earning more than $78,000 per year (86.8% vs 76.5% of those earning less).
- Those with an Advanced Diploma, Diploma or Certificate (84.2%), Bachelor degree (84.1%) or Postgraduate education (85.7%) vs 73.6% of those with a Year 12 or below level of education).
- Those who feel dissatisfied or very dissatisfied with their job (94.2%).
- Those who work in the following locations:
    - Construction site (91.5%)

- Hospital or medical centre (89.1%)
- School, TAFE or university (88.5%).

- Those who work in the following occupations (ANZSCO major groups):
  - Professionals (89.4%)
  - Machinery Operators and Drivers (86.5%)
  - Technicians and Trades Workers (84.6%).

- Those who work in the following industries:
  - Financial and Insurance Services (88.9%)
  - Construction (86.7%)
  - Education and Training (86.6%)
  - Professional, Scientific and Technical Services (85.6%)
  - Health Care and Social Assistance (85.5%).

Figure 3 Levels of psychosocial hazards: cognitive and emotional demands, and experiences of hostile behaviour



Base: Total (n=6,617).
Source: HAZ3. The next statements are about your experience of work. How often are these statements true of you?

Note: Don't know (all <1%) and Refused (all <0.5%) not shown on chart.
Values of 3% or less are not shown on the chart to improve readability.
Ever: All of the time, often, some of the time, and rarely.

Subgroup differences for statement: ‘My job requires a lot of concentration’

When asked how frequently ‘My job requires a lot of concentration’, the share of workers who said this was true, often or all of the time, varies across different groups of workers and jobs. Jobs requiring sustained concentration are more common among workers in skilled and professional roles, and among those with higher education (postgraduate or Bachelor degree level).

Reports that jobs require a lot of concentration often or always varies by:

- **Age:** Higher among workers aged 35–44 years (71.7%), 45–54 years (71.2%), and 55–64 years (70.4%), compared with workers aged 24 years and under (52.8%).
- **Tenure:** Higher among workers with more than 10 years’ tenure (72.3%), compared with those with 1–3 years (66.8%).
- **Education:** Higher among workers with postgraduate qualifications (78.3%) and Bachelor degrees (73.2%), compared with those with Year 12 or below (56.0%).
- **Occupation:** More common among workers in skilled and professional roles.
- **Work environment:** Higher in medical environments (80.4%).

The requirement for sustained concentration differs significantly across industries. Sustained cognitive demands are most common in technical, professional and specialist industries, and less common in service-oriented or operational industries.

Agreement that jobs require sustained concentration varies by industry:

- **Higher in:** Financial and Insurance Services (84.9%), Electricity, Gas, Water and Waste Services (81.7%), and Professional, Scientific and Technical Services (81.6%).
- **Compared to:** Administrative and Support Services (52.3%), Accommodation and Food Services (49.1%), and Retail Trade (47.6%).

Agreement varies by occupation (ANZSCO sub-major):

- **Highest among:** Sales Representatives and Agents (90.0%), Professionals (89.9%), and Arts and Media Professionals (89.1%)
- **Compared to:** Farmers and Farm Managers (51.9%), Farm, Forestry and Garden Workers (47.7%), and Sales Assistants and Salespersons (33.5%).

Conversely, low job demands and concentration are also considered a hazard. Sustained periods where concentration is not required at work (never or rarely) are experienced by 7.6% of workers. This is more common in industries such as:

- Agriculture, Forestry and Fishing (19.5%)
- Administrative and Support Services (19.4%)
- Accommodation and Food Services (12.8%)
- Retail Trade (16.4%).

Subgroup differences for statement: ‘I am exposed to traumatic situations, events, or material at work’

Overall, more than one in eight workers (13.6%) reported being exposed to traumatic situations, events or material at work often or all the time. Exposure to trauma at work often or all the time varies by gender, education and work environment. It is more common among women, postgraduates and hospital or medical centre workers.

Reports of being exposed to traumatic situations, events or material at work often or all the time varies by:

- Gender: Higher among women (16.3%) than men (11.1%).

- Age: Higher among those aged 35–44 (16.3%) compared to those aged 24 or under (11.4%) or 45 and older (11.7%).
- Tenure: Higher among those who have worked for longer than 12 months (14.6%) compared to those whose tenure is less than 12 months (9.1%).
- Education: Higher among those with postgraduate qualifications (18.2%) compared to those with a year 12 or below (9.5%), Advanced Diploma, Diploma or Certificate (14.2%) or Bachelor degree (14.8%) level of education.
- Apprenticeship status: Higher among are apprentices (22.0%) compared to those who are not apprentices (13.2%).
- Work environment: Higher among those working in a hospital or medical centre (41.6%) compared to all other locations.

Exposure to traumatic situations is more common in the healthcare sector, and among people who work in people facing public order and social wellbeing roles.

Exposure to traumatic situations, events or material at work often or all the time varies by industry:

- **Higher among:** Health Care and Social Assistance (32.3%) and Public Administration and Safety (26.9%)
- **Compared to:** Agriculture, Forestry and Fishing (12.0%), Retail Trade (7.1%), Accommodation and Food Services (5.7%). and Administrative and Support Services (5.4%).

Exposure to traumatic situations, events or material at work often or all the time varies by occupation (ANZSCO sub-major):

- **Higher among:** Protective Service Workers (60.3%) and Legal, Social and Welfare Professionals (50.5%)
- **Compared to:** Sales Assistants and Salespersons (5.3%) and Business, Human Resource and Marketing Professionals (5.2%).

2.3. Key agent groups

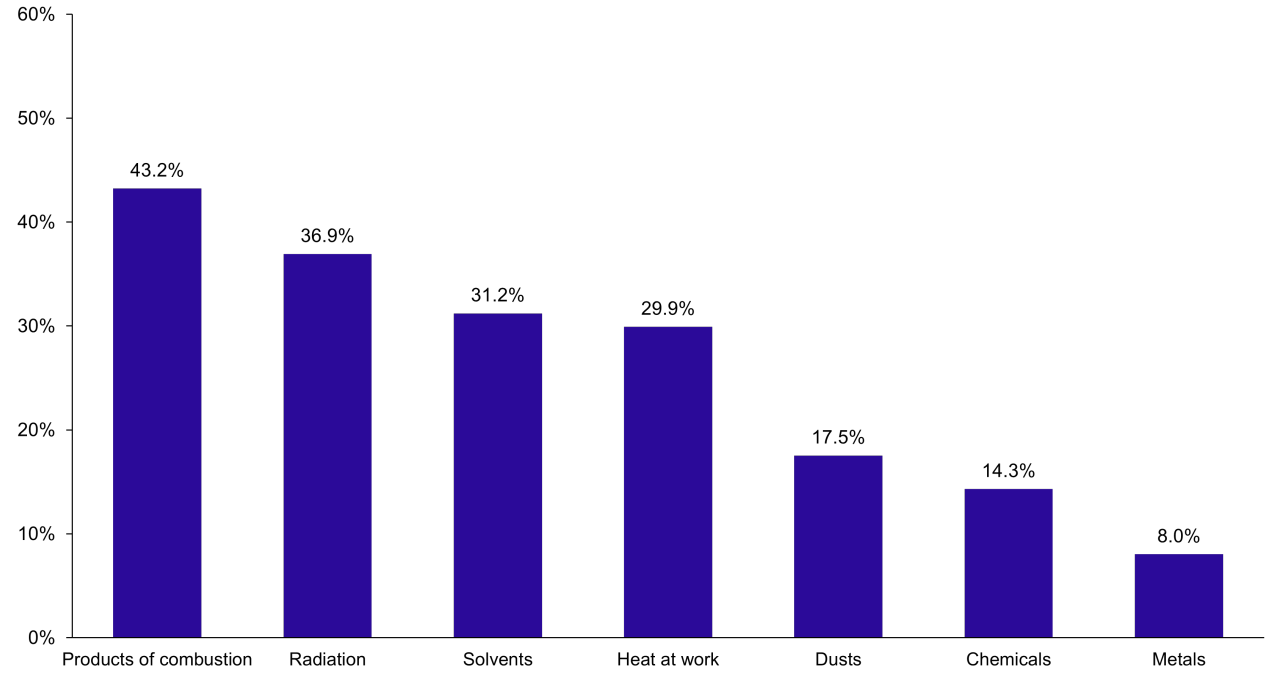
In this section, individual work-related agents have been combined into broader ‘agent groups’ to make the results easier to report and compare across the Australian workforce. These agent groups bring similar hazards together (for example, dusts, metals, solvents or radiation, long working hours) so we can show where exposure is more common across industries and occupations.

This section highlights which agent groups workers are most commonly exposed to. It is designed to support comparisons and identify prevention priorities, not to assess the severity of hazards in individual workplaces. Later sections provide more detail for specific agents.

Overview of exposures: Key agent groups

As shown in Figure 4, products of combustion is the agent group with the most common exposure, with 43.2% of workers exposed at any level. This is followed by radiation (36.9%), solvents (31.2%), heat at work (29.9%), dusts (17.5%), chemicals (14.3%) and metals (8.0%). Exposure to metals was the least common agent group that workers were exposed to overall.

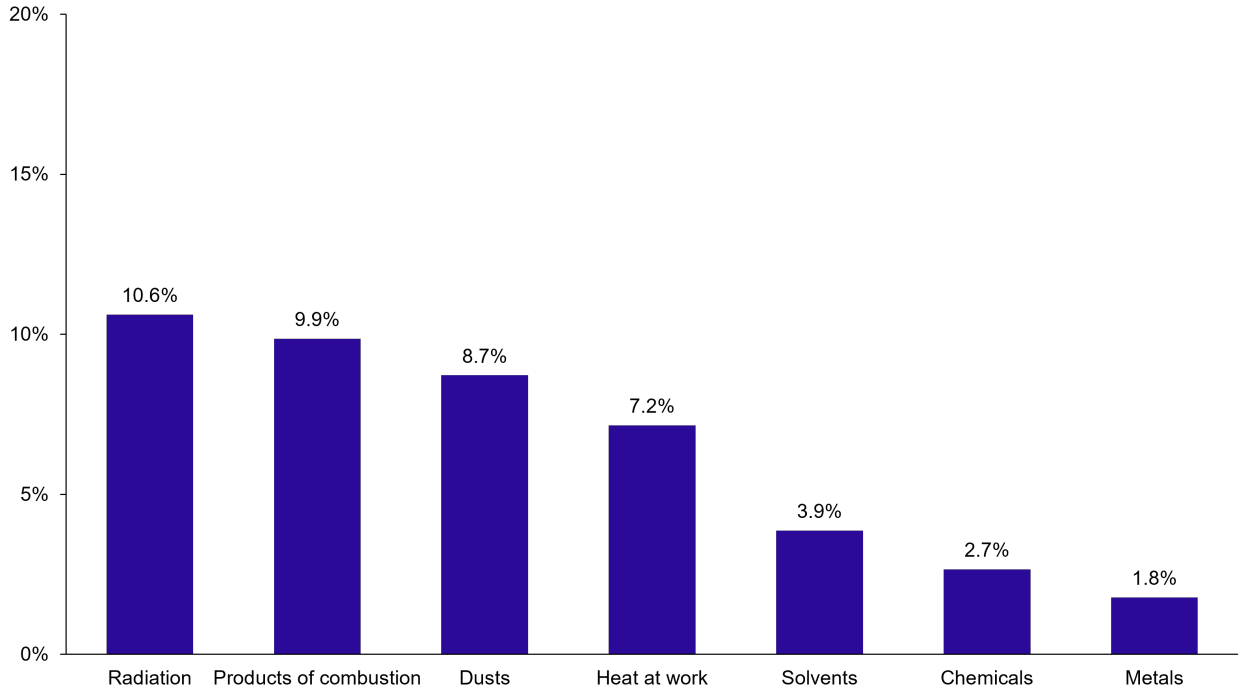
Figure 4 Key agent groups (‘any exposure’)



Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

When considering high level exposure (Figure 5), ionising and non-ionising radiation is revealed to be the most common agent group, with one in ten (10.6%) workers experiencing probable high level exposure. This is mostly driven by solar UV (6.8% of workers probably exposed at a high level) and ocular UV (6.4%). High level exposure to products of combustion (9.9%), dusts (8.7%) and heat at work (7.2%) also each affected around one in ten workers. Smaller proportions of workers have high level exposure to solvents (3.9%), chemicals (2.7%) and metals (1.8%).

Figure 5 Those exposed at a high level ('probably exposed – high') (%)



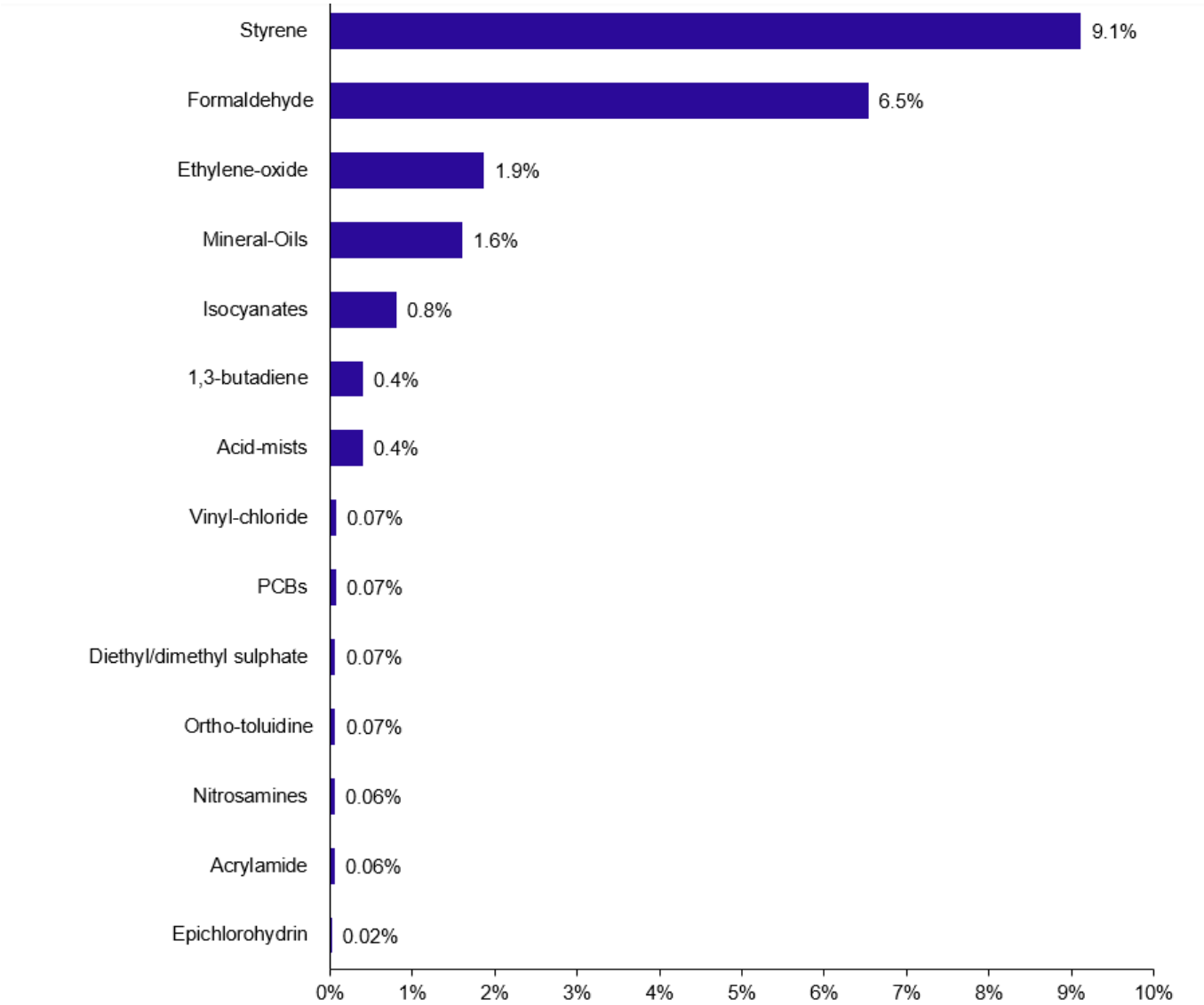
Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Figure 6 through to Figure 12 present a breakdown of individual agents by category, showing exposure at any level. For individual agents, the top 10 most common exposures were ocular UV (32.6%), solar UV (32.4%), benzene (31.0%), heat at work (29.9%), diesel exhaust (26.3%), environmental tobacco smoke (including vapes) (25.8%), silica (13.6%), styrene (9.1%), wood dust (8.2%), and shiftwork (8.2%).

Within the ionising and non-ionising radiation agent group, solar UV (32.4%) and ocular UV (32.6%) were the most common, each affecting about a third of all workers.

Refer to Section 2.1.2 for more information about the breakdown of exposure levels for individual agents.

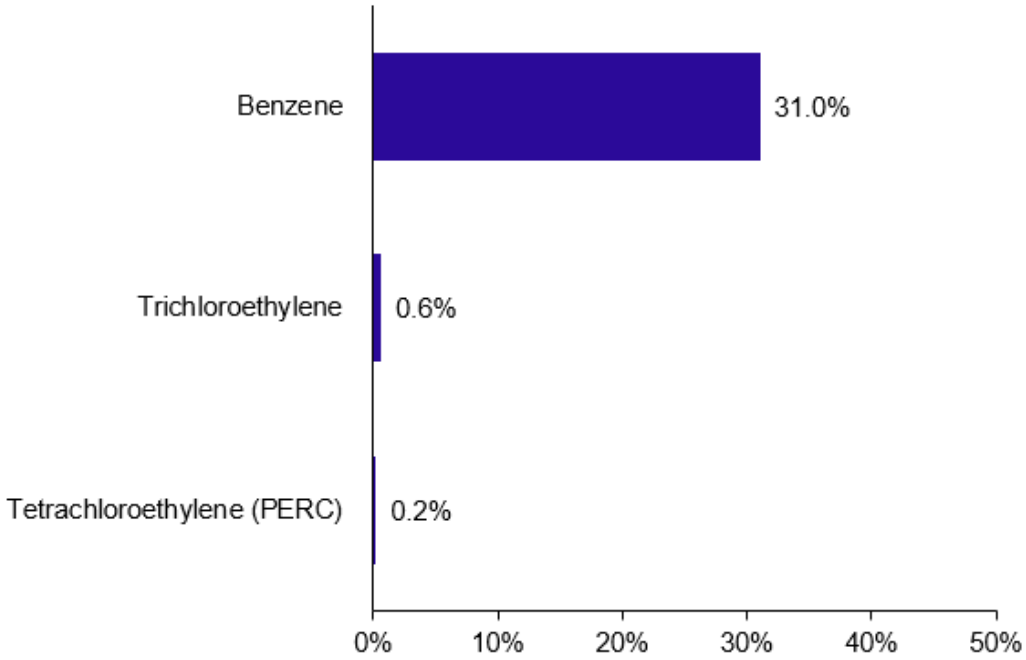
Figure 6 Chemicals: individual OccIDEAS agent (exposure at any level)



Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

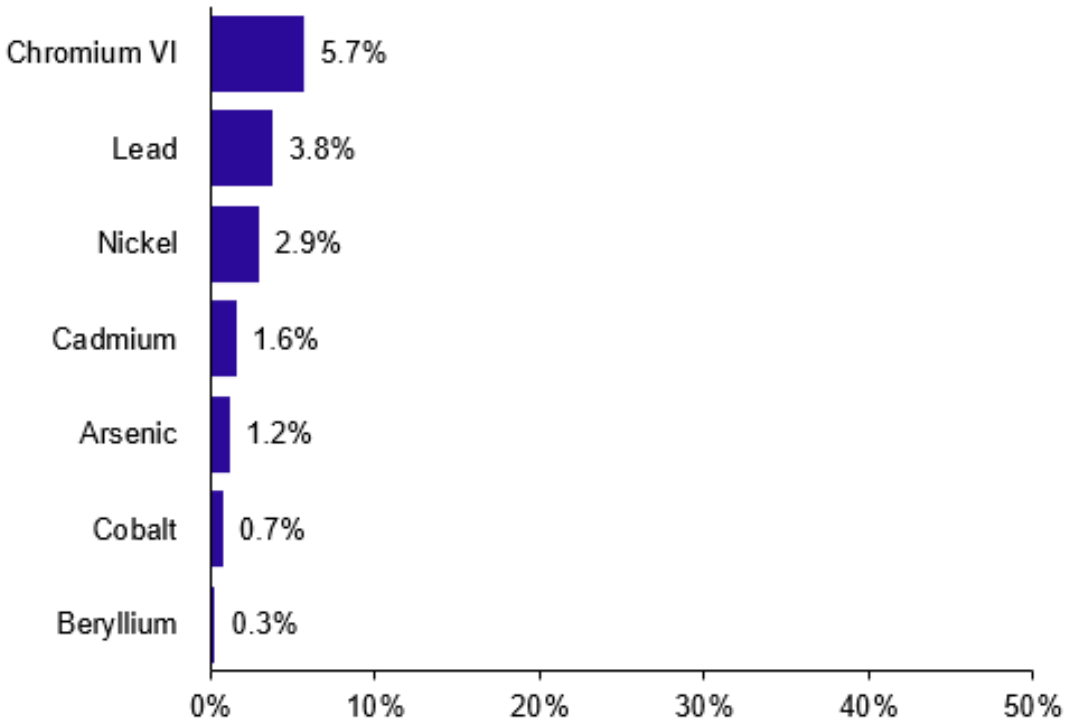
Note: MOCA was removed from this figure because no exposure was recorded.

Figure 7 Solvents: individual OccIDEAS agent (exposure at any level)



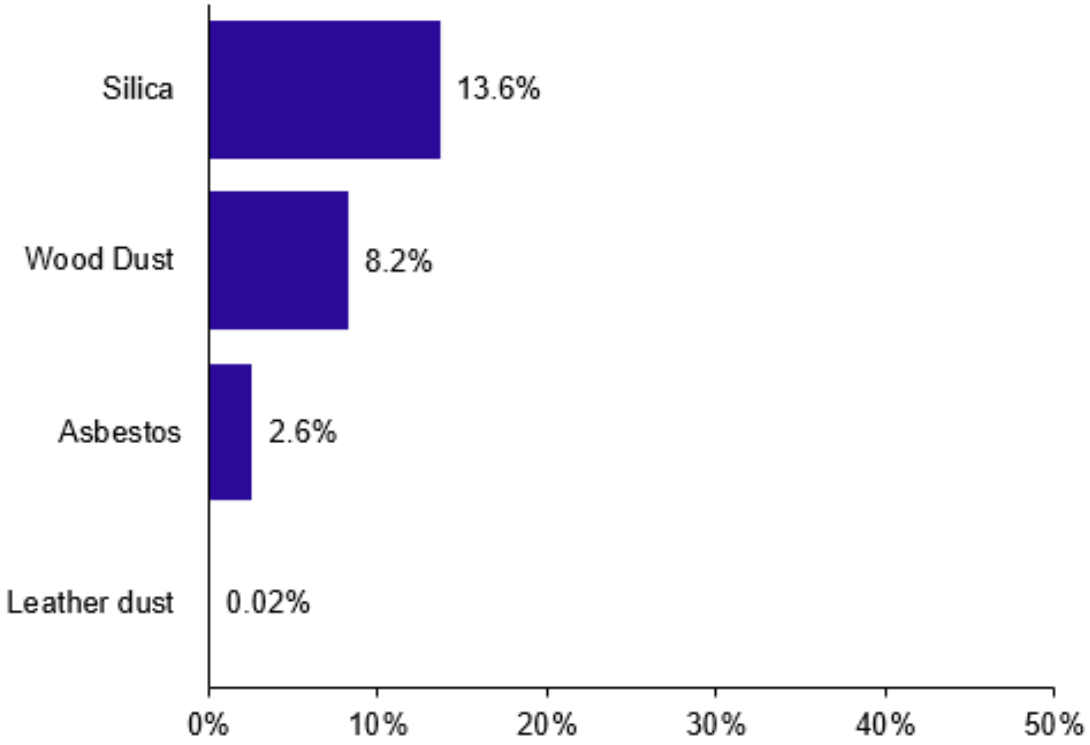
Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Figure 8 Metals: individual OccIDEAS agent (exposure at any level)



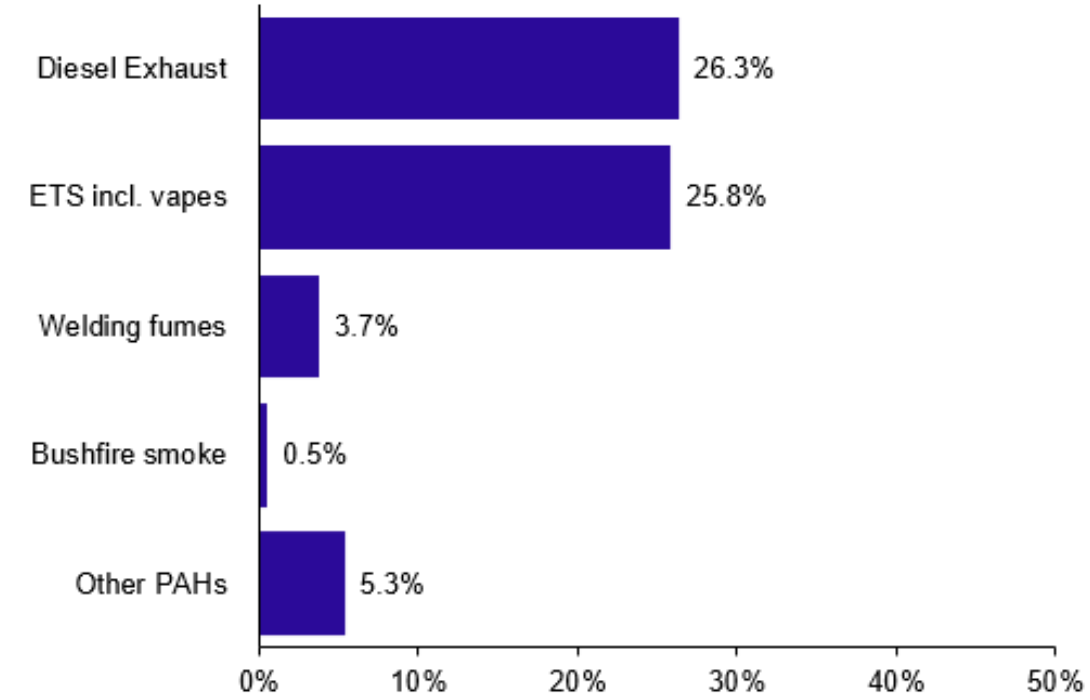
Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Figure 9 Dusts: individual OccIDEAS agent (exposure at any level)



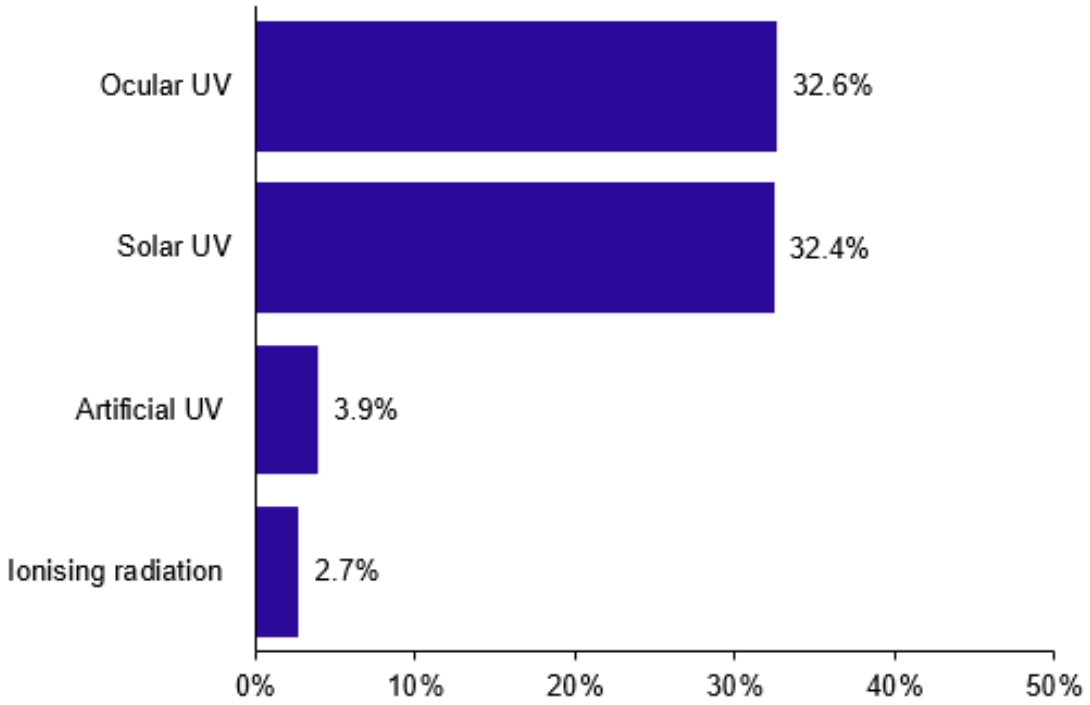
Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Figure 10 Products of combustion: individual OccIDEAS agent (exposure at any level)



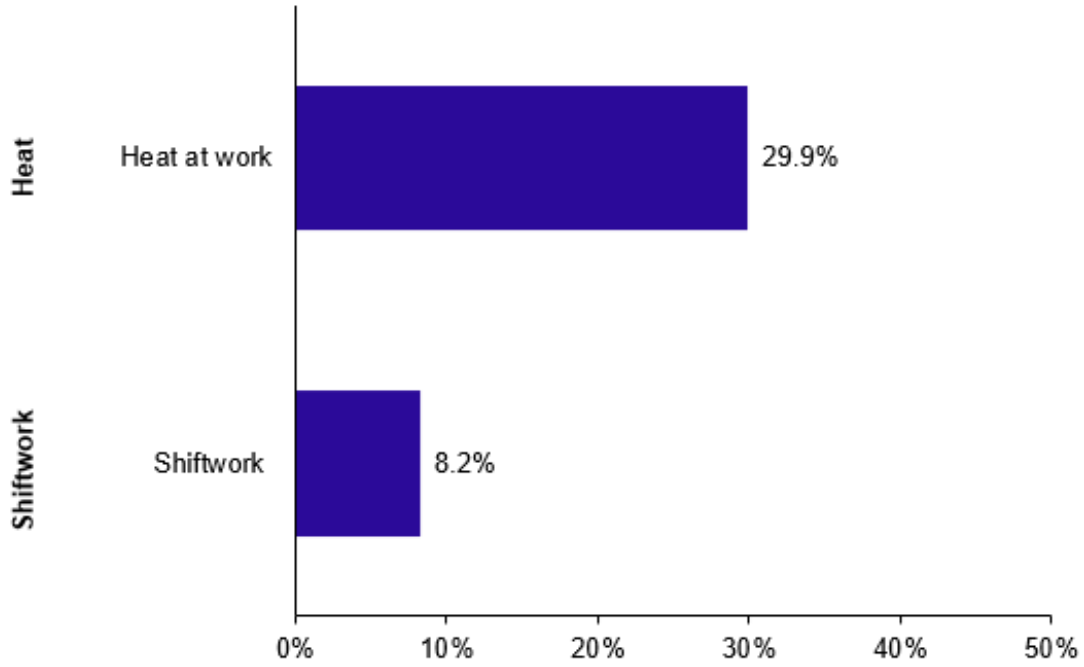
Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Figure 11 Ionising and non-ionising radiation: individual OccIDEAS agent (exposure at any level)



Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Figure 12 Heat and Shiftwork: individual OccIDEAS agent (exposure at any level)

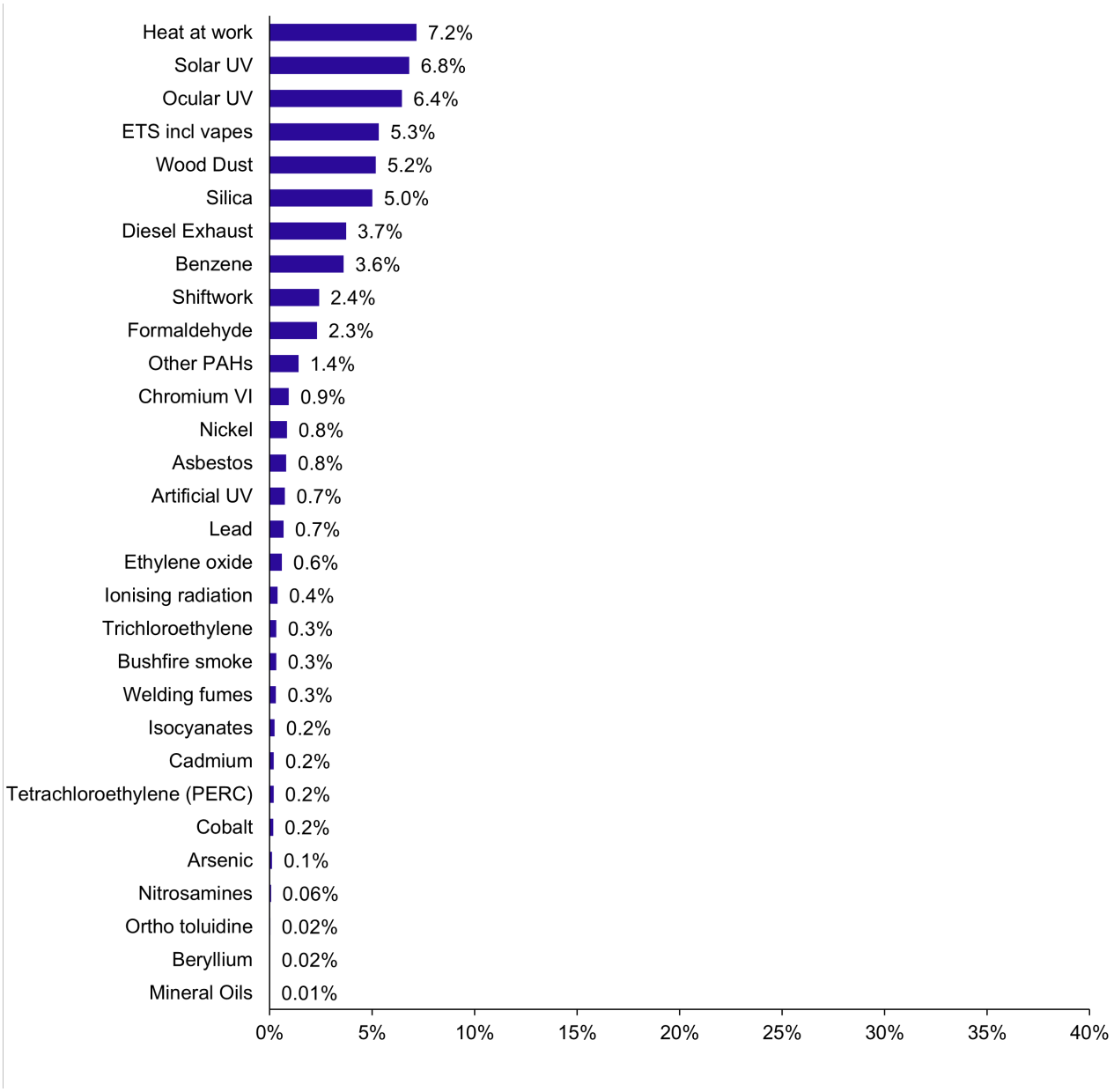


Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

High level exposure

Looking now at high level exposure to *individual agents*, heat at work is the agent with the highest proportion of probable high level exposure (7.2%)**Error! Reference source not found.**. Several other agents were also associated with high level exposure, although fewer workers were exposed to them overall. These were solar UV (6.8%), ocular UV (6.4%), environmental tobacco smoke including vapes (5.3%), wood dust (5.2%), silica (5.0%), diesel exhaust (3.7%), benzene (3.6%), shiftwork (2.4%) and formaldehyde (2.3%).

Figure 13 Proportion of high level ('probably exposed – high') exposure by agent



Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Note: Agents that have no high level assessments were not included in the above figure.

Workers who worked 55 hours or more

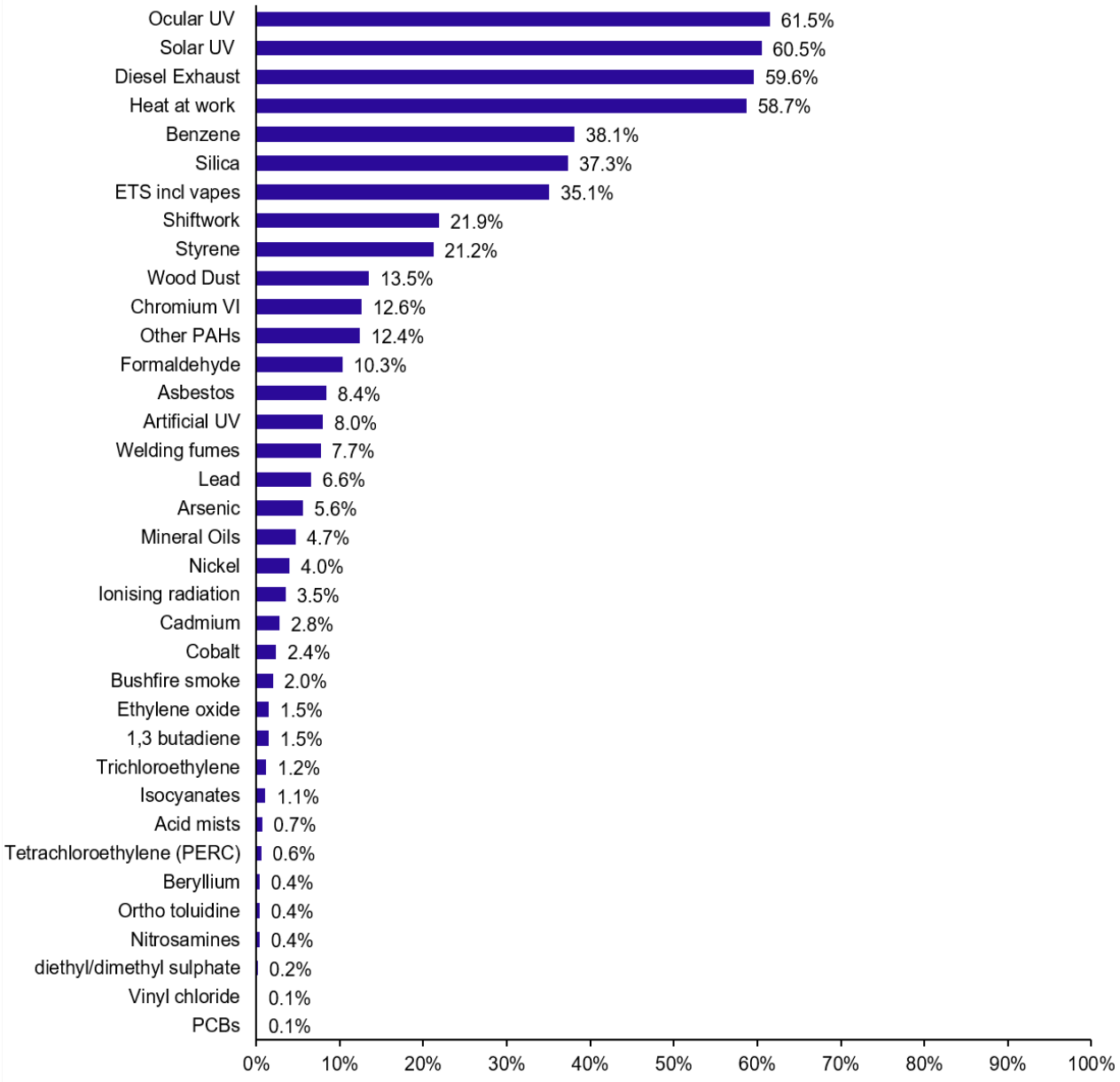
Notably, workers who worked 55 hours or more per week were more likely to be exposed to a range of agents than workers who worked shorter hours. As shown in Figure 14, workers in this group were more likely to be exposed to ocular UV (61.5%), solar UV (60.5%), diesel exhaust (59.6%), and heat (58.7%). A sizeable proportion are also exposed to silica dust (37.3%). Smaller but still notable proportions of workers had exposure to shiftwork (21.9%), styrene (21.2%), wood dust (13.5%), chromium VI (12.6%), other PAHs (12.4%), asbestos (8.4%), artificial UV (8.0%) and welding fumes (7.7%) in this group.

Exposure was concentrated in the Construction, Mining, and Agriculture, Forestry and Fishing industries. Of those who worked 55 or more hours, and were exposed to:

- Ocular UV: 19.7% worked in Construction and 13.1% in Mining
- Solar UV: 20.3% worked in Construction and 12.7% in Agriculture, Forestry and Fishing
- Diesel exhaust: 21.9% worked in Mining and 18.6% in Construction

- Heat at work: 17.9% worked in Construction and 17.7% in Mining
- Silica: 30.6% worked in Construction and 29.6% in Mining
- Shiftwork: 29.3% worked in Mining and 12.3% in Agriculture, Forestry and Fishing
- Styrene: 18.3% worked in Mining and 17.8% in Construction
- Wood dust: 30.2% worked in Construction and 15.3% in Agriculture, Forestry and Fishing
- Chromium VI: 28.4% worked in Construction and 15.7% in Mining
- Other PAHs: 23.2% worked in Mining and 21.7% in Construction
- Asbestos: 39.7% worked in Mining and 12.8% in Electricity, Gas, Water and Waste Services
- Artificial UV: 22.0% worked in Construction and 21.9% in Mining
- Welding fumes: 22.9% worked in Construction and 22.8% in Mining.

Figure 14 Agent exposure for those with long working hours (≥ 55 hours per week)



Base: Worked 55 hours or more in the last week and had 'any exposure' to agents (n=417).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

2.4. International benchmarks (contextual comparison)

To help interpret the 2026 AWES results, we also looked at findings from similar studies in other countries. Direct comparisons should be treated with caution because the studies use different methods and samples. The specific reports include the WorkSafe NZ, New Zealand Carcinogens Survey (NZCS 2021) and the European Agency for Safety and Health at Work (EU-OSHA) Workers' Exposure Survey (2023).

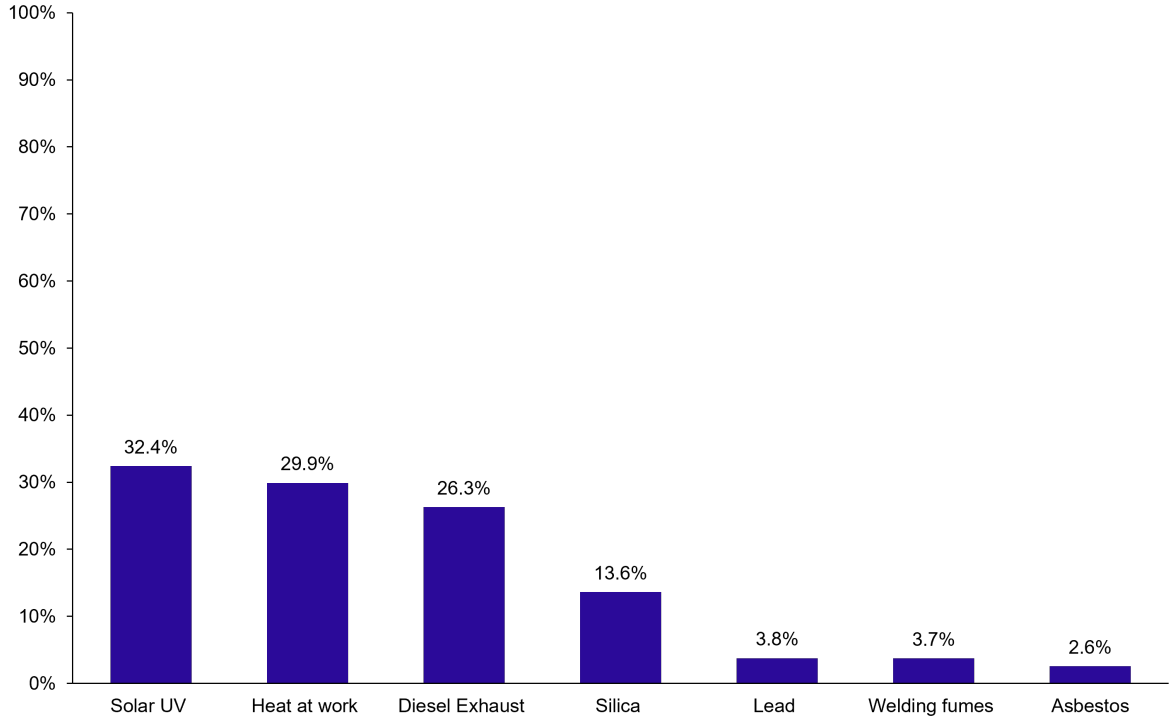
- Across these studies, solar and ocular ultraviolet (UV) radiation are among the most common occupational exposures internationally. In the EU-OSHA Workers' Exposure Survey, among all workers in all six countries, solar UV was the most common exposure, affecting 20.8% of workers in the last working week at any level. In New Zealand, the Carcinogens Survey estimates that 26.8% of workers were exposed to solar UV and 25.5% to ocular UV, reflecting the prominence of outdoor work exposures across sectors. By contrast, estimates are higher in Australia, potentially influenced by differing climate patterns and the summer timing of data collection, with ocular UV exposure at 32.6% and solar UV at 32.4%.
- Diesel exhaust is also identified as a common exposure in international studies. The EU-OSHA survey (EU-OSHA, 2025) identifies diesel exhaust as one of the most frequently reported carcinogenic exposures across construction, transport and industrial sectors (19.9%), while the New Zealand Carcinogens Survey estimates that around 23.7% of workers are exposed to diesel exhaust. The 2026 AWES result for diesel exhaust exposure is comparable at 26.3% of workers.
- Respirable crystalline silica is highlighted nationally in Australia and internationally as a priority exposure (Safe Work Australia, 2023; Asbestos and Silica Safety and Eradication Agency, 2024). EU-OSHA findings identify silica as one of the exposures most commonly estimated at higher exposure intensities, particularly in construction and manufacturing, while the New Zealand Carcinogens Survey estimates that 10.3% of workers are exposed to silica. This is below what we see in the 2026 AWES (13.6%).
- Exposure to wood dust and process-generated fumes (including welding fumes) also commonly occurred amongst workers in the EU-OSHA and New Zealand Carcinogens Survey, particularly among trades and manufacturing occupations. In New Zealand, wood dust exposure is estimated at 8.4% of workers, while EU findings similarly identify wood dust and welding-related fumes as frequent exposures in industrial and trade-based work. This is comparable to the 2026 AWES result for wood dust of 8.2% of workers.
- The New Zealand Carcinogens Survey estimates that 8.6% of workers are exposed to shiftwork as a cancer-related risk factor, while EU-OSHA findings similarly highlight shiftwork as a common exposure in transport, health and industrial settings. This is similar to the 2026 AWES estimate for shiftwork between midnight and 5am of 8.2%.

2.5. High risk agents

This section focuses on a subset of specific high risk agents. Exposure to these agents is linked to more serious or long-term health risks (World Health Organization & International Labour Organization, 2021). These agents are high risk because they are carcinogens, can be toxic, can build up in the body over time, or are linked to chronic disease. This means that even relatively limited exposure can be an important WHS concern. Understanding exposure to these agents in more detail helps show where exposure is concentrated within certain industries and occupations. This then supports the need for targeted prevention and control efforts for workers most likely to be exposed.

A range of guidance material is available on the Safe Work Australia website to support the management of workplace hazards and protect workers from harm. For more information, visit the Safe Work Australia hazards webpage.

Figure 15 Summary of high risk agents ('any exposure')



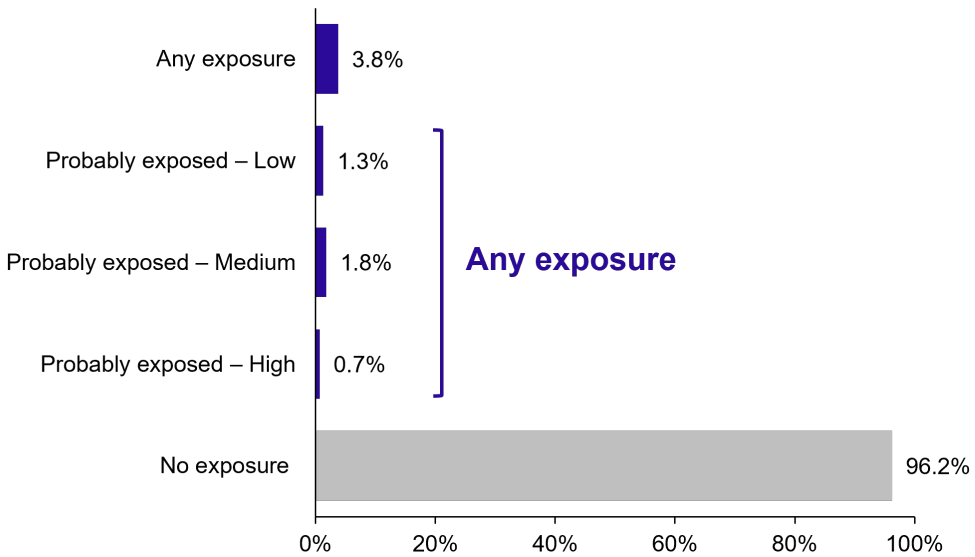
Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Lead

Overall, 3.8% of workers have probable occupational exposure to lead at any level. This is about 571,000 workers in Australia (Australian Bureau of Statistics, 2026). Most exposure is experienced at low to medium levels. Around 1.3% of workers are classified as having low level exposure and 1.8% at a medium level, while 0.7% experience high level exposure.

Although lead exposure affects a smaller proportion of workers compared to some other agents (see Figure 15), it remains an important WHS concern given its well-established health risks and the potential for harm (Safe Work Australia, n.d.). The International Agency for Research on Cancer (IARC) classifies inorganic lead compounds as a Group 2A carcinogen (probably carcinogenic to human) (IARC, 2026).

Figure 16 Levels of exposure: lead



Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey – Lead.

Lead: Industry and occupation differences

Occupational exposure to lead is concentrated in a small number of industries and occupations. These roles are often linked to manual, technical and operational work.

Industry

Construction is the industry most impacted by lead exposure, with around one in five people working in this industry probably exposed (19.9%), reflecting the combination of physical, environmental and materials related hazards common in this sector. Other industries with high probable exposure include: Other Services, Mining, Electricity, Gas, Water and Waste Services, and Manufacturing. These industries often involve routine interaction with machinery, infrastructure, vehicles or hazardous substances.

Occupation

Probable exposure to lead differs significantly by occupation. The occupation with the highest proportion of workers with probable exposure is Construction Trades Workers (38.9% of workers in this occupation), followed by Automotive and Engineering Trades Workers (20.3%) and Electrotechnology and Telecommunications Trades Workers (16.9%). Labour-intensive roles such as Construction and Mining Labourers (15.1%) and Machine and Stationary Plant Operators (10.7%) also feature prominently.

The proportion of workers with probable exposure is lower overall among managerial and professional roles. However, the high rate of probable exposure among Specialist Managers and Engineering, ICT and Science Technicians (see Table 11) shows that exposure is not limited to hands-on roles, and can also occur in technical, supervisory or field-based work.

Table 11 Top 10 industries and occupations by proportion of workers with probable exposure to lead

Industry (ANZSIC Main)	Proportion (%)	Occupation (ANZSCO Sub-major group)	Proportion (%)
Construction	19.9%	Construction Trades Workers	38.9%
Other Services	8.5%	Automotive and Engineering Trades Workers	20.3%
Mining	7.7%	Electrotechnology and Telecommunications Trades Workers	16.9%
Electricity, Gas, Water and Waste Services	7.5%	Construction and Mining Labourers	15.1%
Manufacturing	6.7%	Machine and Stationary Plant Operators	10.7%
Agriculture, Forestry and Fishing	5.1%	Specialist Managers	8.1%
Transport, Postal and Warehousing	2.7%	Engineering, ICT and Science Technicians	7.9%
Public Administration and Safety	2.3%	Farmers and Farm Managers	7.2%
Wholesale Trade	2.1%	Other Technicians and Trades Workers	5.9%
Rental, Hiring and Real Estate Services	1.9%	Protective Service Workers	5.7%

Base: Lead ‘any exposure’. Base varies by Industry from n=68 (Rental, Hiring and Real Estate Services) to n=517 (Construction), and Occupation from n=70 (Farmers and Farm Managers) to n=633 (Specialist Managers).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey – Lead.

Lead: Demographic subgroup differences

Probable exposure to lead varies across demographic and worker characteristics. It is more common in manual and trade-based roles and in some industrial work settings.

A significantly higher proportion of men experienced probable exposure (6.8% compared with 0.6% of women), indicating a strong gender-based pattern consistent with occupational segregation (Jobs and Skills Australia, 2026).

Workplace characteristics further shape exposure patterns. Probable lead exposure occurs in higher proportions of workers who spend most of their time at construction sites (24.4%), and in workshops or service centres (20.0%), factories (9.3%), laboratories (4.6%), and warehouses (3.6%), compared with office-based settings (1.1%). Exposure is also higher among apprentices and trainees (17.0%) than non-apprentices (3.1%), and increases with employment tenure, peaking among those employed 4–10 years (4.7%) or more than 10 years (4.7%), which is significantly higher than those employed less than 12 months (1.3%).

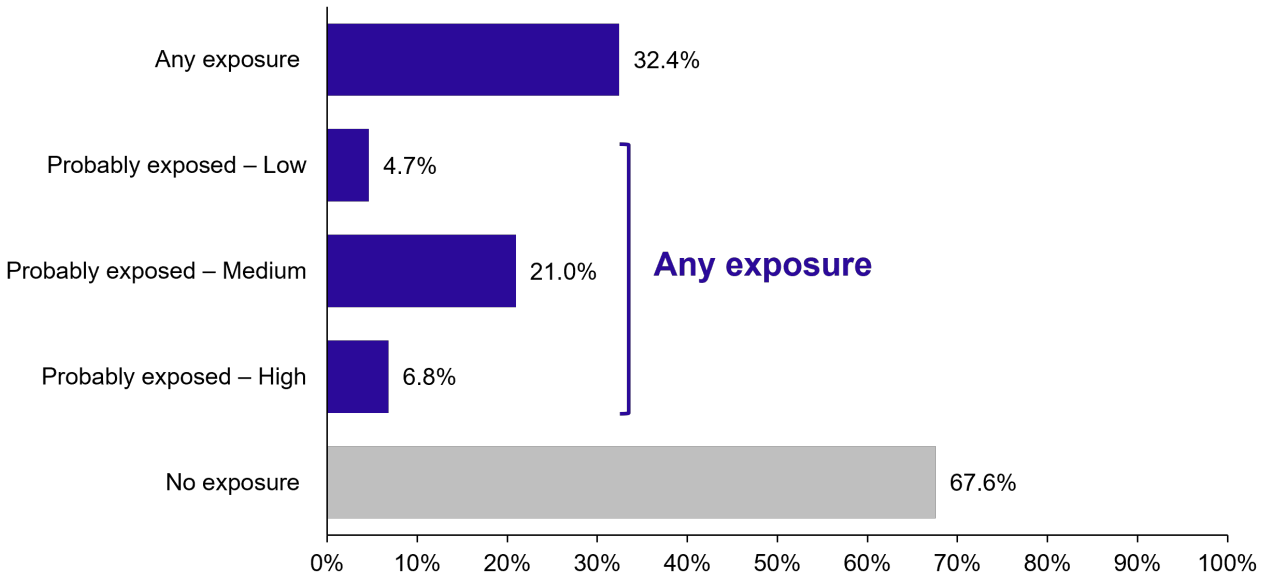
Further, probable lead exposure is more likely among workers with an Advanced Diploma, Diploma or Certificate, (5.9%) versus those with a Bachelor's degree (2.5%) or postgraduate qualifications (2.7%). Of note, those who speak only English at home are also more likely to be exposed (4.2%), than those who speak a language other than English at home (1.9%).

Solar UV

Solar UV exposure is common across the Australian workforce. This highlights that outdoor and semi-outdoor work remains a substantial source of hazard exposure nationally. Findings show that 32.4% of workers have occupational exposure to solar UV at any level. This amounts to approximately 4.87 million workers in Australia (Australian Bureau of Statistics, 2026). Globally,1.6 billion workers are exposed annually to solar UV radiation (Pega et al*.,* 2023).

Solar UV work-related exposure is assessed at low, medium and high levels (or for incidental exposures as 'no exposure'). The fieldwork period for the AWES spanned December 2025 to February 2026, possibly inflating solar UV exposure. Of all workers, 21.0% were classified as having medium level exposure and 6.8% as high level exposure (with 4.7% observing low level exposure). This profile suggests that a sizeable share of exposed workers experience sustained or intense solar UV exposure, reinforcing its importance as a priority for preventive WHS measures given the well-established health risks associated with UV exposure.

Figure 17 Levels of exposure: solar UV



Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey – Solar UV.

Solar UV: Industry and occupation differences

Industry

Solar UV exposure is concentrated in industries where work is routinely undertaken outdoors. The industries with the highest proportion of workers with probable exposure are Agriculture, Forestry and Fishing (74.8%) and Construction (67.5%), followed by Transport, Postal and Warehousing (51.5%). Other industries with substantial exposure include Electricity, Gas, Water and Waste Services (47.8%), Mining (47.1%) and Rental, Hiring and Real Estate Services (42.7%). This is a reminder that solar UV exposure extends beyond traditionally 'outdoor' sectors into field-based operational and service roles.

Occupation

Differences by occupation show that solar UV exposure is concentrated among agriculture and outdoor labouring roles. 'Probable exposure' is highest among Skilled Animal, Agricultural and Horticultural Workers (86.7%), Farm, Forestry and Garden Workers (81.1%), and Farmers and Farm Managers (80.0%). Exposure is also common among construction and field-based roles including Construction and Mining Labourers (78.3%), Construction Trades Workers (74.0%), and Electrotechnology and Telecommunications Trades Workers (73.4%). The inclusion of transport occupations such as Road and Rail Drivers (72.7%) further highlights that regular outdoor or on-road work is a key driver of exposure.

Table 12 Top 10 industries and occupations by proportion of workers with probable exposure to solar UV

Industry (ANZSIC Main)	Percentage	Occupation (ANZSCO Sub-major group)	Percentage
Agriculture, Forestry and Fishing	74.8%	Skilled Animal, Agricultural and Horticultural Workers	86.7%
Construction	67.5%	Farm, Forestry and Garden Workers	81.1%
Transport, Postal and Warehousing	51.5%	Farmers and Farm Managers	80.0%
Electricity, Gas, Water and Waste Services	47.8%	Construction and Mining Labourers	78.3%
Mining	47.1%	Construction Trades Workers	74.0%
Rental, Hiring and Real Estate Services	42.7%	Electrotechnology and Telecommunications Trades Workers	73.4%
Other Services	40.7%	Road and Rail Drivers	72.7%
Administrative and Support Services	40.3%	Mobile Plant Operators	65.4%
Arts and Recreation Services	36.2%	Protective Service Workers	61.8%
Education and Training	36.1%	Automotive and Engineering Trades Workers*	57.9%

Base: Solar UV 'any exposure'. Base varies by Industry from n=68 (Rental, Hiring and Real Estate Services) to n=664 (Education and Training), and Occupation from n=70 (Farmers and Farm Managers) to n=156 (Automotive and Engineering Trades Workers).

***Note**: Rank 9 of occupation (Machinery operations and drivers) is not shown in the top 10 due to a small base size (n=3). Instead Automotive and Engineering Trades Workers is shown (Rank 11).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey – Solar UV.

Solar UV: Demographic subgroup differences

Solar UV exposure is more common in outdoor, construction and regionally based roles.

Overall, around one-third of workers (32.4%) are exposed to solar UV. Men are significantly more likely to experience exposure than women (41.6% vs 22.6%).

By state, solar UV exposure is significantly more likely in the Northen Territory (51.3%), Queensland (35.6%), South Australia (38.2%) and Western Australia (35.8%) compared with New South Wales (31.0%) and Victoria (28.6%). This is consistent with climatic patterns. People working outside capital cities are also significantly more likely to be exposed than those working in capital cities (42.2% vs 27.2%).

Strong differences are also evident by work context and location. The proportion of workers with probable exposure is significantly higher among workers who spend most of their time outdoors (82.9%) and at construction sites (78.0%), compared to workers who are working from an indoor environment like offices (18.2%), restaurants, kitchens or cafés (14.2%), and medical environments (9.8%).

Socio-economic status differences are also apparent. The Australian Bureau of Statistics Socio-Economic Indexes for Areas (SEIFA) is a measure that summarises relative socio-economic disadvantage at the area level that has been grouped into five categories from most disadvantaged to least disadvantaged. Probable solar UV exposure is more prevalent among workers living in areas in the most disadvantaged SEIFA quintile (quintile 1) (40.1%) than those in the least disadvantaged quintile (quintile 5) (24.4%).

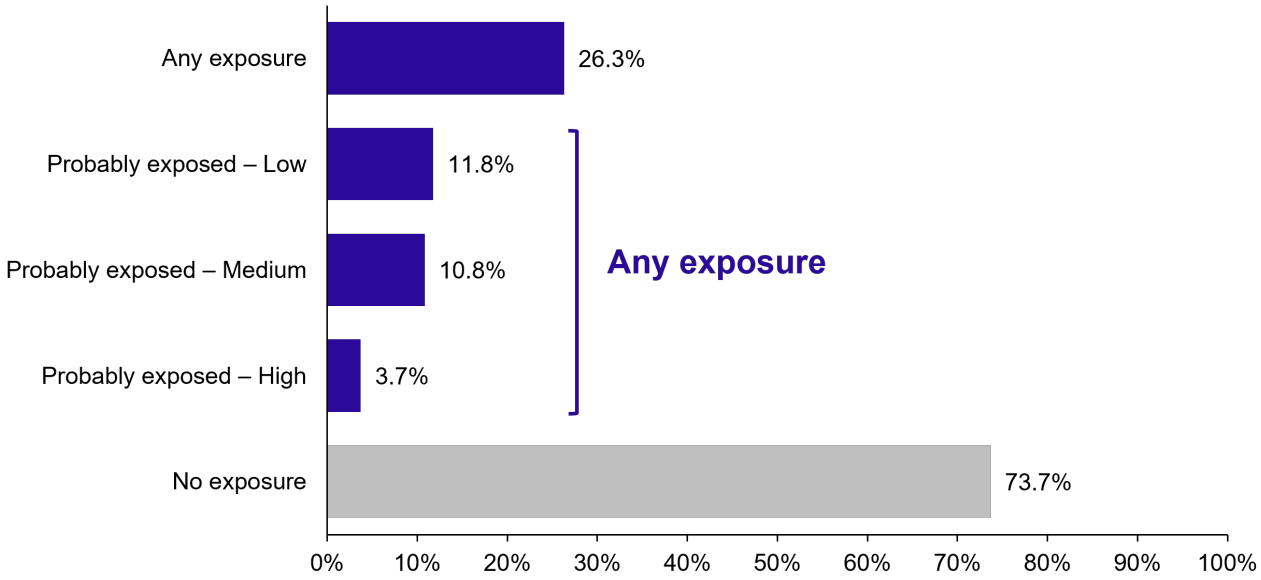
Workers with an Advanced Diploma, Diploma or Certificate (42.1%) had a significantly higher likelihood of exposure than those with Year 12 or below education (32.8%), a Bachelor degree (22.7%) or postgraduate qualifications (22.4%). Further, the proportion of workers with probable exposure is also significantly higher among apprentices and trainees (50.9%) compared with non-apprentices (31.4%).

Diesel engine exhaust

Exposure to diesel exhaust remains common across the Australian workforce. This reflects the ongoing use of diesel-powered vehicles, plant and equipment across many work settings. Overall, 26.3% of workers have probable exposure to diesel exhaust at any level, indicating that more than one in four workers encounter this hazard in their current role. This amounts to approximately 3.95 million workers in Australia (Australian Bureau of Statistics, 2026).

Exposure occurs across intensity levels, with 11.8% of all workers assessed as having low level exposure and 10.8% medium level exposure. A further 3.7% experience high level exposure. Although high level exposure affects a smaller proportion of workers overall, diesel exhaust is of ongoing WHS relevance due to its established health impacts and the likelihood that exposure is concentrated among workers in operational roles and higher-contact environments (e.g., where vehicles or machinery are used regularly).

Figure 18 Levels of exposure: diesel exhaust



Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey – Diesel exhaust.

Diesel exhaust: Industry and occupation differences

Industry

Diesel exhaust exposure is concentrated in industries that routinely use diesel-powered vehicles and machinery. The highest likelihood of exposure is for workers in Agriculture, Forestry and Fishing (72.8%) and Mining (71.5%). This is followed by Construction (56.8%), Transport, Postal and Warehousing (52.2%) and Electricity, Gas, Water and Waste Services (50.6%). Notable prevalence of exposure is also observed in Other Services (40.4%), Wholesale Trade (33.1%) and Manufacturing (32.4%). These findings show the widespread presence of diesel equipment across both field-based and industrial work settings.

Occupation

Diesel exhaust exposure most commonly occurs in roles that involve driving and working around powered equipment. ‘Probable exposure’ is highest among Farmers and Farm Managers (77.9%), Road and Rail Drivers (72.8%), Electrotechnology and Telecommunications Trades Workers (72.7%), and Automotive and Engineering Trades Workers (72.2%). The presence of both farming and trade occupations in the top rankings indicates exposure is driven not only by transport work, but by regular proximity to diesel engines across a range of operational environments.

Table 13 Top 10 industries and occupations by proportion of workers with probable exposure to diesel exhaust

Industry (ANZSIC Main)	Percentage	Occupation (ANZSCO Sub-major group)	Percentage
Agriculture, Forestry and Fishing	72.8%	Farmers and Farm Managers	77.9%
Mining	71.5%	Road and Rail Drivers	72.8%
Construction	56.8%	Electrotechnology and Telecommunications Trades Workers	72.7%
Transport, Postal and Warehousing	52.2%	Automotive and Engineering Trades Workers	72.2%

Industry (ANZSIC Main)	Percentage	Occupation (ANZSCO Sub-major group)	Percentage
Electricity, Gas, Water and Waste Services	50.6%	Mobile Plant Operators	69.0%
Other Services	40.4%	Skilled Animal, Agricultural and Horticultural Workers	67.7%
Wholesale Trade	33.1%	Machine and Stationary Plant Operators	64.4%
Manufacturing	32.4%	Construction and Mining Labourers	64.4%
Administrative and Support Services	29.5%	Farm, Forestry and Garden Workers	62.5%
Rental, Hiring and Real Estate Services	29.3%	Construction Trade Workers*	54.2%

Base: Diesel exhaust 'any exposure'. Base varies by Industry from n=68 (Rental, Hiring and Real Estate Services) to n=517 (Construction), and Occupation from n=70 (Farmers and Farm Managers) to n=156 (Automotive and Engineering Trades Workers).

***Note**: Rank 9 of occupation (Machinery operations and drivers) is not shown in the top 10 due to a small base size(n=3). Instead Construction Trade Workers is shown (Rank 12).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey – Diesel engine exhaust.

Diesel exhaust: Demographic subgroup differences

Probable diesel exhaust exposure is concentrated among male workers, those in regional areas, outdoor and mobile work environments, and more disadvantaged segments of the workforce. Exposure varies significantly across demographic, geographic and work-related subgroups, reflecting differences in job tasks and work environments.

Men are significantly more likely to experience exposure than women (38.5% vs 13.3%). Exposure is also significantly more likely to be assessed in Queensland (29.5%), South Australia (33.7%) and Western Australia (33.2%) compared with Victoria (22.9%) and New South Wales (22.8%). Further, exposure to diesel exhaust is more prevalent amongst people working outside capital cities compared to those working in capital cities (38.5% vs 20.1%).

Marked differences are also evident by work location. Probable exposure is highest among workers who spend most of their time outdoors (71.9%), at construction sites (63.9%), and while travelling for work (64.5%), all significantly higher than indoor-based locations. In particular, exposure is lower among office-based workers (16.3%), shop/retail locations (14.0%), restaurant environments (12.6%), educational environments (7.3%), and medical environments (5.4%).

Exposure is significantly more likely among workers living in areas in the most disadvantaged SEIFA quintile (35.9%) compared with the least disadvantaged (16.3%).

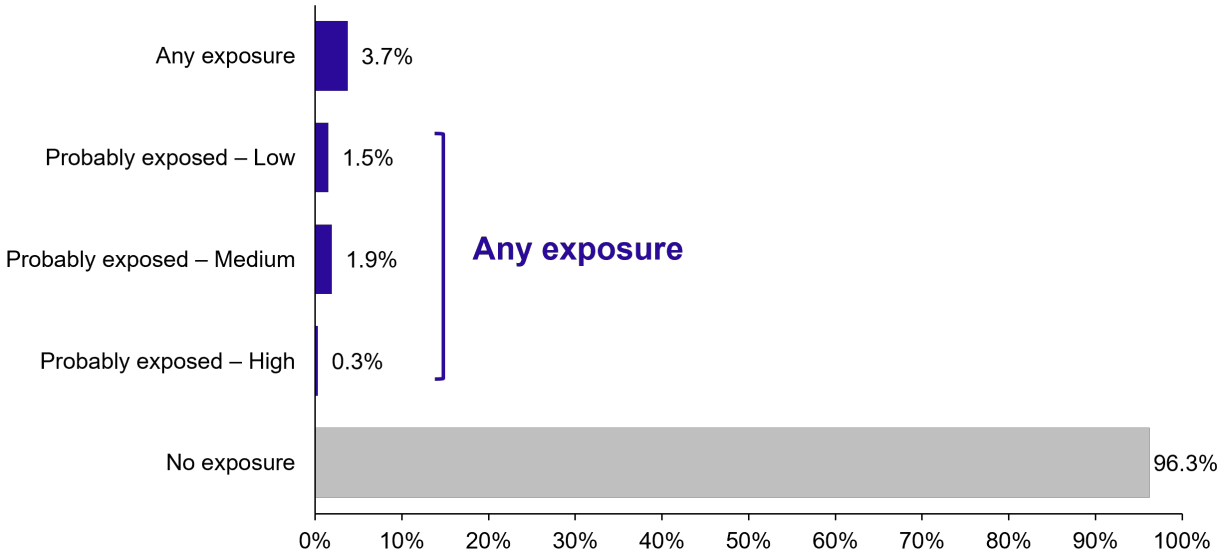
Finally, the proportion of workers with probable exposure is higher among those with an Advanced Diploma, Diploma or Certificate (36.6%) compared to those with a Year 12 or below education (28.4%) or a Bachelor degree (15.4%), and significantly higher among apprentices and trainees (44.7%) compared with non-apprentices (25.3%). Further, the proportion of workers with diesel exhaust exposure increases with employment tenure, peaking among workers employed more than 10 years (29.4%).

Welding fumes

Exposure to welding fumes is highly relevant for a specific group of workers in trades and technical roles where welding and related hot-work activities occur. In total, 3.7% of workers have exposure to welding fumes at any level. This amounts to approximately 556,000 workers in Australia.[3]

Most exposure is observed at low (1.5%) or medium (1.9%) levels, while 0.3% of workers experience high level exposure. While the overall prevalence is comparatively low, welding fume exposure remains a priority hazard given its recognised health risks and that exposure is concentrated within specific industries and occupations involving fabrication, maintenance and repair tasks.

Figure 19 Levels of exposure: welding fumes



Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey – Welding fumes.

Welding fumes: Industry and occupation differences

Industry

Probable exposure to welding fumes is concentrated in industries where metal fabrication, repair and maintenance work are common. Probable exposure to welding fumes is higher among workers in the Manufacturing (13.9%), Agriculture, Forestry and Fishing (12.8%) and Construction (12.4%) industries, followed by Other Services (8.7%) and Mining (8.7%). Some exposure is also observed for workers in Electricity, Gas, Water and Waste Services (5.5%), Wholesale Trade (3.3%), Administrative and Support Services (2.8%), and Transport, Postal and Warehousing (2.6%). This reflects how welding-related tasks also occur across a range of operational and maintenance contexts, not only core fabrication settings.

Occupation

Differences by occupation are pronounced, with probable exposure most concentrated among trade groups directly involved in welding and metal work. The likelihood of welding fume exposure is highest among Automotive and Engineering Trades Workers (with 43.3% of these workers ‘probably exposed’), followed by Electrotechnology and Telecommunications Trades Workers (19.5%) and Construction Trades Workers (16.0%). Exposure is also observed in roles where welding may be part of the work, or where workers may be near welding activity. This includes, Farmers and Farm Managers (19.4%), Farm, Forestry and Garden Workers (10.4%), as well as Machine and Stationary Plant Operators (9.8%), Construction and Mining Labourers (8.5%), and Factory Process Workers (6.8%).

[3] Extrapolation based on ABS Labour Account estimates of employed persons in Australia (December quarter 2025, with 15.0 million employed people in Australia, which is 15,026,400, seasonally adjusted). https://www.abs.gov.au/statistics/labour/labour-accounts/labour-account-australia/latest-release

Table 14 Top 10 industries and occupations by proportion of workers with probable exposure to welding fumes

Industry (ANZSIC Main)	Percentage	Occupation (ANZSCO Sub-major group)	Percentage
Manufacturing	13.9%	Automotive and Engineering Trades Workers	43.3%
Agriculture, Forestry and Fishing	12.8%	Electrotechnology and Telecommunications Trades Workers	19.5%
Construction	12.4%	Farmers and Farm Managers	19.4%
Other Services	8.7%	Construction Trades Workers	16.0%
Mining	8.7%	Farm, Forestry and Garden Workers	10.4%
Electricity, Gas, Water and Waste Services	5.5%	Machine and Stationary Plant Operators	9.8%
Wholesale Trade	3.3%	Construction and Mining Labourers	8.5%
Administrative and Support Services	2.8%	Skilled Animal, Agricultural and Horticultural Workers	8.3%
Transport, Postal and Warehousing	2.6%	Factory Process Workers	6.8%
Rental, Hiring and Real Estate Services	2.4%	Other Technicians and Trades Workers	6.5%

Base: Welding fumes 'any exposure'. Base varies by Industry from n=68 (Rental, Hiring and Real Estate Services) to n=517. (Construction), and Occupation from n=54 (Factory Process Workers) to n=156 (Automotive and Engineering Trades Workers).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey – Welding fumes.

Welding fumes: Demographic subgroup differences

Welding fume exposure is relatively uncommon across the workforce but is highly concentrated within specific groups of workers. Likelihood of exposure is highest among men, trade-based workers and workers operating in industrial and workshop settings.

Men are significantly more likely to have probable exposure to welding fumes than women (6.4% vs 0.9%).

Workers more likely to have 'probable exposure' to welding fumes are those based in workshops or service centres (28.2%) and construction sites (14.6%). It is also the case that people working outside capital cities have significantly higher likelihood of exposure than those in capital cities (5.1% vs 3.1%).

Further, probable exposure to welding fumes is more common amongst workers living in areas in the most disadvantaged SEIFA quintile (quintile 1: 5.2%) compared to the least disadvantaged quintile (quintile 5: 2.2%).

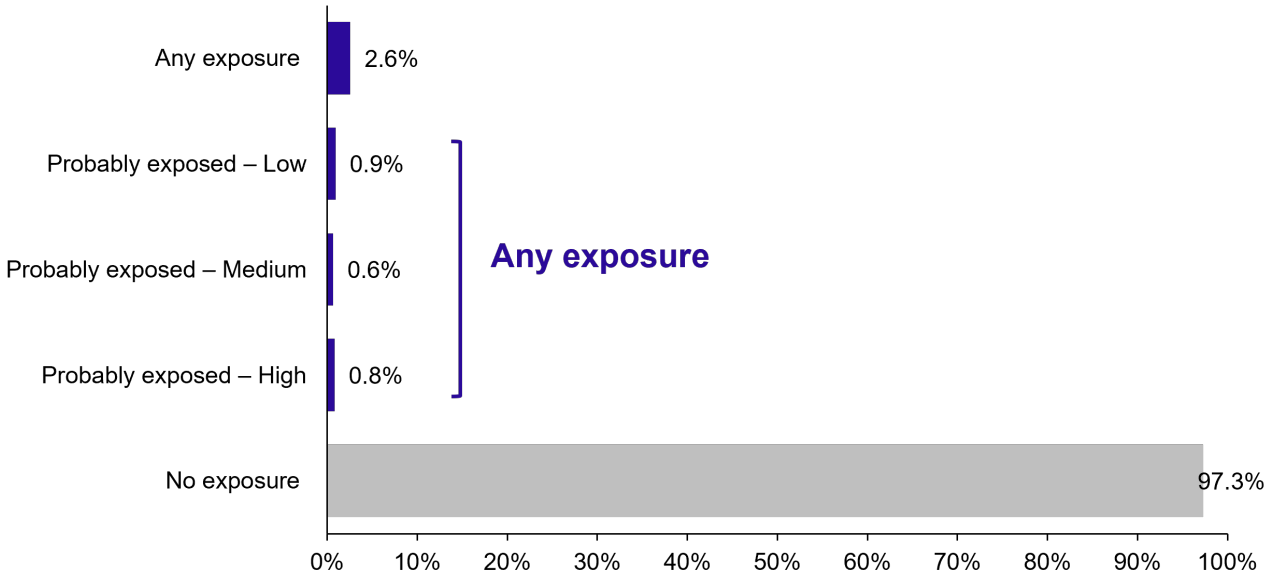
Finally, probable exposure is also higher among workers with an Advanced Diploma, Diploma or Certificate (6.0%) compared with workers holding a Bachelor degree (1.6%) or postgraduate qualifications (1.7%). Apprentices and trainees experienced significantly higher likelihood of exposure (14.9%) than non-apprentices (3.2%), consistent with welding-related tasks in early-career trade pathways.

Asbestos

Asbestos exposure remains an important hazard for a select group of workers. This is typically in jobs where maintenance, renovation, demolition, or contact with legacy asbestos-containing materials may occur. Findings indicate that 2.6% of workers are exposed to asbestos at any level. This amounts to approximately 391,000 workers in Australia (Australian Bureau of Statistics, 2026).

Levels of exposure differ across workers, with most assessed at low levels (0.9%), followed by high level (0.8%) and medium level (0.6%) exposure in certain contexts[4]. Given asbestos' well-established link to serious long-latency diseases (such as asbestosis, lung cancer and mesothelioma), even comparatively limited exposure remains a critical WHS concern. Exposure is concentrated in a small number of industries and occupations linked to construction and materials disturbance.

Figure 20 Levels of exposure: asbestos



Base: All respondents (n=6,617).

Source: Safe Work Australia, 2026 Australian Worker Exposure Survey – Asbestos.

Asbestos: Industry and occupation differences

Industry

Occupational exposure to asbestos is concentrated in a small number of industries. This reflects older asbestos-containing materials and the potential for exposure during maintenance, refurbishment and other industrial work. Exposure most commonly occurs amongst workers in the Mining (22.1%), Electricity, Gas, Water and Waste Services (10.5%), Agriculture, Forestry and Fishing (6.9%) and Construction (6.1%) industries[5]. Exposure is also experienced in Other Services (5.1%) and to a lesser extent in Transport, Postal and Warehousing (2.9%) and Manufacturing (2.5%). This indicates exposure can occur across a range of operational and maintenance contexts beyond construction alone.

[4] Implicitly, the level of asbestos exposure accounts for the type of asbestos involved, as the rules-based OccIDEAS exposure assessment system considers both the type of work tasks done and the work settings in which they are performed.
[5] It should be noted that the exposures in the Mining industry may be due to naturally occurring asbestos, whereas exposures in other industries are more likely from work involving asbestos-containing materials.

Occupation

Differences by occupation show probable asbestos exposure is most concentrated among operational roles working around plant, equipment and built environments where asbestos may be present. Machine and Stationary Plant Operators (19.6%) are the workers most likely to be exposed to asbestos, followed by Construction and Mining Labourers (12.3%). Exposure is also evident among Farmers and Farm Managers (10.3%) and Construction Trades Workers (9.1%), with Electrotechnology and Telecommunications Trades Workers (7.9%) and Other Technicians and Trades Workers (7.6%) also featuring. The presence of technical roles such as Engineering, ICT and Science Technicians (5.2%) suggests exposure is not limited to hands-on work. It can also occur for workers who spend time in industrial or site-based settings.

Table 15 Top 10 industry and occupations by proportion of workers with probable exposure to asbestos

Industry (ANZSIC Main)	Percentage	Occupation (ANZSCO Sub-major group)	Percentage
Mining	22.1%	Machine and Stationary Plant Operators	19.6%
Electricity, Gas, Water and Waste Services	10.5%	Construction and Mining Labourers	12.3%
Agriculture, Forestry and Fishing	6.9%	Farmers and Farm Managers	10.3%
Construction	6.1%	Construction Trades Workers	9.1%
Other Services	5.1%	Electrotechnology and Telecommunications Trades Workers	7.9%
Transport, Postal and Warehousing	2.9%	Other Technicians and Trades Workers	7.6%
Manufacturing	2.5%	Mobile Plant Operators	6.7%
Public Administration and Safety	1.8%	Engineering, ICT and Science Technicians	5.2%
Wholesale Trade	1.5%	Automotive and Engineering Trades Workers	5.1%
Professional, Scientific and Technical Services	1.4%	Protective Service Workers*	4.7%

Base: Asbestos ‘any exposure’. Base varies by Industry from n=82 (Electricity, Gas, Water and Waste Services) to n=573 (Professional, Scientific and Technical Services), and Occupation from n=63 (Other Technicians and Trades Workers) to n=156 (Automotive and Engineering Trades Workers).

***Note**: Rank 1 of occupation (Machinery operators and drivers) is not shown in the top 10 due to a small base size (n=3). Instead Protective Service Workers is shown (Rank 11).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey – Asbestos.

Asbestos: Demographic subgroup differences

Asbestos exposure is concentrated in some groups of workers. It is more common among men, trade-based workers, and workers in construction and regional settings.

Men are significantly more likely to be exposed to asbestos than women (4.1% vs 0.9%). Younger to middle aged workers have significantly higher likelihood of exposure, with this the case among workers aged under 25 years (3.2%), aged 25–34 years (3.5%) and 35–44 years (3.9%), compared to those aged 45–54 years (1.1%) or 55–64 years (0.8%).

Exposure is also more common among workers living in Western Australia (5.2%) compared to other states, including New South Wales (2.5%), Queensland (2.3%) and Victoria (1.9%). People working outside capital cities have a significantly higher likelihood of exposure than those in capital cities (3.3% vs 2.1%).

Workers based at construction sites are more likely to experience probable asbestos exposure (9.6%) than those working in an office-based setting (1.4%). Probable exposure is also higher among workers living in the most disadvantaged SEIFA quintile (quintile 1: 4.3%) compared with the least disadvantaged (quintile 5: 2.1%).

Trainees and apprentices also experience significantly higher likelihood of exposure (13.7%) than non-apprentices (2.0%).

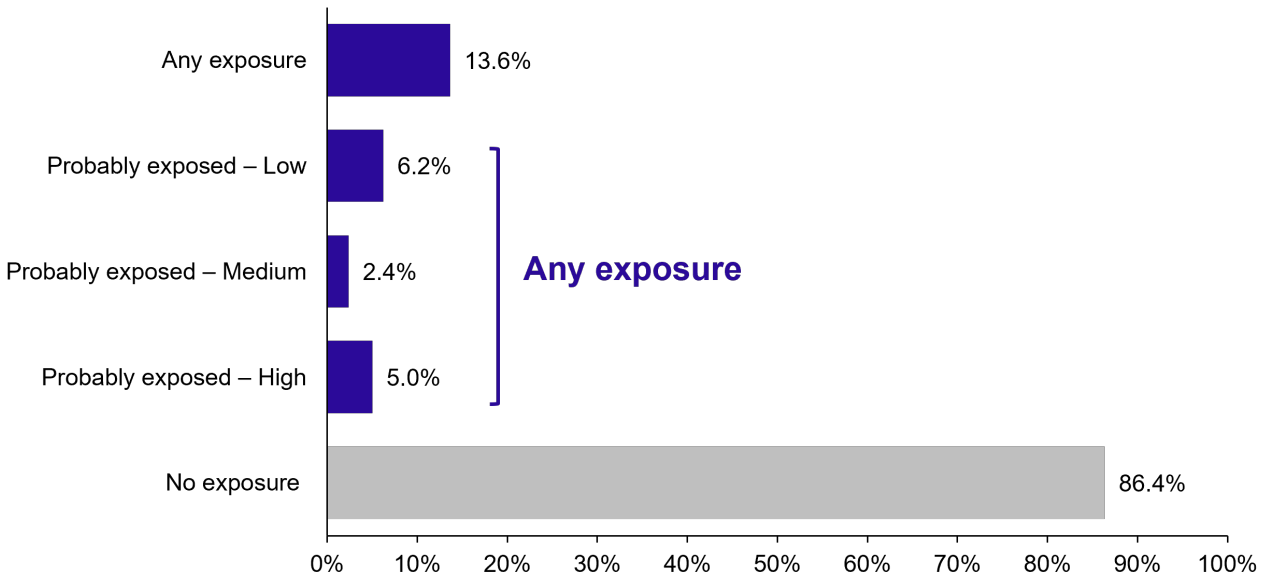
Safe Work Australia funds the Australian Institute of Health and Welfare (AIHW) to manage the Australian Mesothelioma Registry (AMR). The AMR collects information on new cases of mesothelioma diagnosed in Australia since 2010 from the 8 state and territory cancer registries. These records include demographic information and details of diagnosis and death. It also collects asbestos exposure information, obtained from consenting mesothelioma patients. The questionnaire collects information on a patient's residential history, occupational history and family history of mesothelioma. More information on asbestos exposure is available from the AIHW in their *Mesothelioma in Australia 2024* summary report.

Silica dust

Silica dust exposure is relatively common compared with other agents, and is an important WHS concern as it can cause serious diseases such as silicosis and lung cancer. Findings indicate that one in seven workers (13.6%) are exposed to silica at any level. This amounts to approximately 2.04 million workers in Australia (Australian Bureau of Statistics, 2026). This reflects that some tasks in a range of work settings can generate silica dust.

In total, 6.2% of workers were assessed as having low level exposure, 2.4% medium level exposure, and 5.0% high level exposure.

Figure 21 Levels of exposure: silica dust



Base: All respondents (n=6,617).

Source: Safe Work Australia, 2026 Australian Worker Exposure Survey – Silica dust.

Silica dust: Industry and occupation differences

Industry

Exposure to silica dust is most common for workers in the Construction industry, where more than seven in ten (71.8%) are exposed. Exposure is also observed in the Mining industry (63.8%), reflecting the prevalence of silica-containing materials and high-dust activities in both sectors. Outside these industries exposure prevalence is lower but still occurs in high proportions, especially among workers in Agriculture, forestry and fishing (30.8%) and Electricity, gas, water and waste services (22.4%). This indicates that silica dust remains an important hazard in a range of work settings.

Occupation

Exposure prevalence is highest among Construction and mining labourers, with nearly nine in ten workers (89.9%) assessed as having exposure at any level. Very high exposure rates are also recorded among Construction trades workers (86.2%), underscoring the central role of cutting, drilling and handling silica-containing materials in these occupations. More broadly, likelihood of exposure remains evident across a range of occupations, including Electrotechnology and telecommunications trades workers (61.9%) and Machine and stationary plant operators (49.3%). These findings demonstrate that silica dust exposure extends beyond frontline construction roles to workers involved in plant operation, maintenance and supporting technical functions.

Table 16 Top 10 industries and occupations by proportion of workers with probable exposure to silica dust

Industry (ANZSIC Main)	Percentage	Occupation (ANZSCO Sub-major group)	Percentage
Construction	71.8%	Construction and Mining Labourers	89.9%
Mining	63.8%	Construction Trades Workers	86.2%
Agriculture, Forestry and Fishing	30.8%	Electrotechnology and Telecommunications Trades Workers	61.9%
Electricity, Gas, Water and Waste Services	22.4%	Machine and Stationary Plant Operators	49.3%
Transport, Postal and Warehousing	14.0%	Mobile Plant Operators	39.5%
Manufacturing	13.7%	Farm, Forestry and Garden Workers	37.5%
Other Services	10.9%	Engineering, ICT and Science Technicians	34.3%
Wholesale Trade	10.1%	Farmers and Farm Managers	33.1%
Administrative and Support Services	7.6%	Other Technicians and Trades Workers	27.9%
Public Administration and Safety	5.9%	Road and Rail Drivers*	27.4%

Base: Silica dust at 'any exposure'. Base varies by Industry from n=82 (Electricity, Gas, Water and Waste Services) to n=517 (Construction), and Occupation from n=63 (Other Technicians and Trade Workers) to n=151 (Engineering, ICT and Science Technicians).

***Note**: Rank 8 of occupation (Labourers) is not shown in the top 10 due to a small base size (n=9). Instead Road and Rail drivers is shown (Rank 11).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey – Silica dust.

Silica dust: Demographic subgroup differences

Silica dust exposure is relatively common and varies across demographic and work-related subgroups. Exposure is concentrated among men, workers in regional areas, and workers in construction and outdoor work settings.

Men are significantly more likely to be exposed to silica dust than women (22.6% vs 4.2%). Exposure also varies by age, with higher rates of exposure among younger and middle-aged workers. Higher rates of exposure are observed among workers aged 25–34 years (16.1%) and 35–44 years (15.5%) compared to those aged 55–64 years (10.8%), and 65+ years and older (8.9%).

Geographically, exposure to silica dust is higher among workers living in Western Australia (18.3%), compared with New South Wales (12.2%) and Victoria (11.6%). Workers outside capital cities are also significantly more likely to be assessed as having exposure than those in capital cities (17.6% vs 11.3%). Further, work location is strongly linked to exposure. Exposure prevalence is significantly higher among workers based at construction sites (85.4%) and outdoors (29.6%). In contrast, exposure is less likely among office-based workers (6.3%).

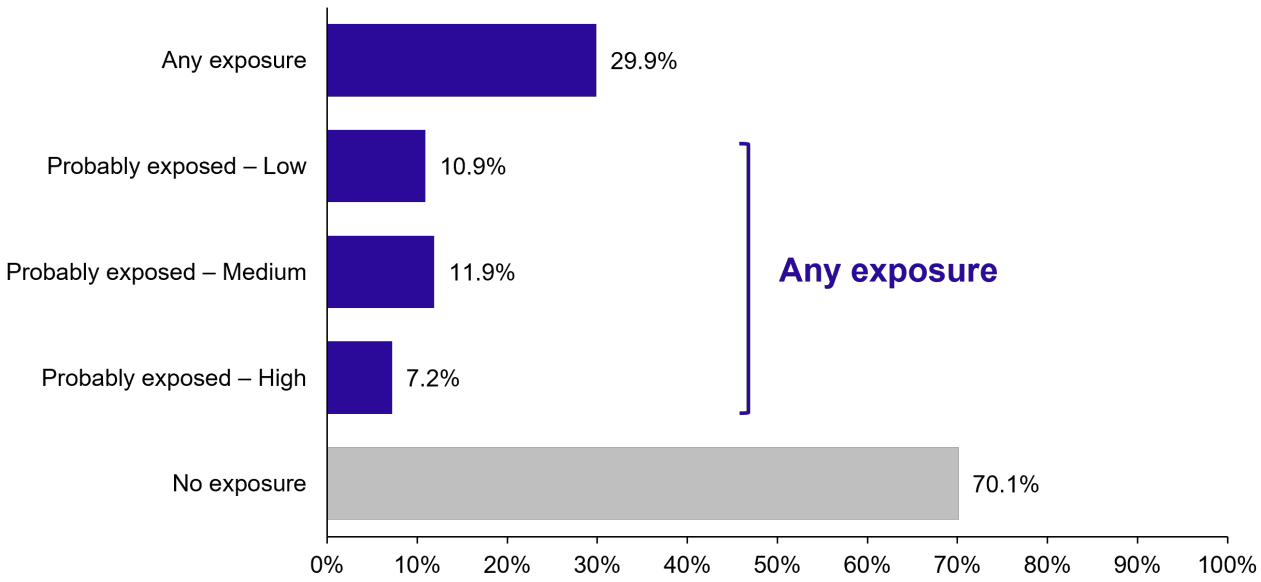
The likelihood of exposure is significantly higher among workers living in areas in the most disadvantaged SEIFA quintile (17.0%) compared with the least disadvantaged (8.8%). Exposure is also higher among those with an Advanced Diploma, Diploma or Certificate (19.2%), relative to workers with a Year 12 or below education (13.8%), Bachelor degree (7.7%) or postgraduate qualifications (8.4%). Apprentices and trainees also experience significantly higher rates of exposure (35.7%) than non-apprentices (12.5%).

Heat at work

Three in ten (29.9%) workers have probable exposure to heat at work, amounting to approximately 4.49 million workers in Australia (Australian Bureau of Statistics, 2026). By level of exposure, 7.2% are exposed at a high level, 11.9% at a medium level, and 10.9% at a low level.

High level exposure is more likely in settings where physical workload and environmental conditions combine, and where workers have limited opportunities to cool down or recover.

Figure 22 Levels of exposure: heat at work



Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey – Heat at work.

Industry and occupation differences: Heat at work (Probable exposure)

Industry

Heat exposure is most prevalent in Mining, where nearly two-thirds of workers (64.3%) are assessed as probably exposed. High rates of exposure are also evident in Construction (55.8%) and Agriculture, Forestry and Fishing (55.4%), reflecting the influence of outdoor work and heat-intensive environments. However, exposure is not limited to traditionally outdoor industries. Substantial proportions of workers in Administrative and Support Services (43.5%), Transport, Postal and Warehousing (43.0%), Manufacturing (41.3%), and Electricity, Gas, Water and Waste Services (41.0%) also commonly experience heat exposure, indicating its presence across a range of operational and industrial settings. While exposure is comparatively lower in Wholesale Trade (37.8%), Other Services (36.1%), and Accommodation and Food Services (33.0%), these findings nonetheless highlight that heat remains a widespread hazard across both outdoor and indoor work environments.

Occupation

Heat exposure is most prevalent among Skilled Animal, Agricultural and Horticultural Workers, where around seven in ten workers (70.9%) are assessed as probably exposed. Similarly high exposure rates are observed among Machine and Stationary Plant Operators (68.4%), Automotive and Engineering Trades Workers (68.3%), and Construction and Mining Labourers (66.6%), reflecting sustained work in outdoor environments and near heat-generating equipment. Elevated exposure is also evident among Storepersons (66.1%), Mobile Plant Operators (63.9%), and Farm, Forestry and Garden Workers (63.2%), indicating heat exposure extends across both field-based and operational roles. While exposure is slightly lower among Construction Trades Workers (61.1%), Electrotechnology and Telecommunications Trades Workers (60.6%), and Road and Rail Drivers (57.3%), these findings nonetheless highlight that heat remains a widespread hazard across a diverse range of occupations, particularly those involving manual, outdoor, or machinery-intensive work.

Table 17 Top 10 industry and occupations by proportion of workers with probable exposure to heat at work

Industry (ANZSIC Main)	Percentage	Occupation (ANZSCO Sub-major group)	Percentage
Mining	64.3%	Skilled Animal, Agricultural and Horticultural Workers	70.9%
Construction	55.8%	Machine and Stationary Plant Operators	68.4%
Agriculture, Forestry and Fishing	55.4%	Automotive and Engineering Trades Workers	68.3%
Administrative and Support Services	43.5%	Construction and Mining Labourers	66.6%
Transport, Postal and Warehousing	43.0%	Storepersons	66.1%
Manufacturing	41.3%	Mobile Plant Operators	63.9%
Electricity, Gas, Water and Waste Services	41.0%	Farm, Forestry and Garden Workers	63.2%
Wholesale Trade	37.8%	Construction Trades Workers	61.1%

Industry (ANZSIC Main)	Percentage	Occupation (ANZSCO Sub-major group)	Percentage
Other Services	36.1%	Electrotechnology and Telecommunications Trades Workers	60.6%
Accommodation and Food Services	33.0%	Road and Rail Drivers*	57.3%

Base: Heat at work 'any exposure'. Base varies by Industry from n=82 (Electricity, Gas, Water and Waste Services) to n=517 (Construction), and Occupation from n=71 (Mobile Plant Operators) to n=156 (Automotive and Engineering Trades Workers).

***Note**: Rank 7 of occupation (Machinery Operators and Drivers) is not shown in the top 10 due to a small base size (n=3). Instead Road and Rail drivers is shown (Rank 11).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey – Heat at work.

Heat at work: Demographic subgroup differences

Heat exposure varies across demographic and workplace groups. It is more common in some work settings and regions, which likely reflects differences in work environment, job tasks and climate.

Men are significantly more likely to have probable exposure to heat at work than women (38.6% vs 20.6%). Exposure varies by age, with significantly higher prevalence of exposure among younger workers. Workers aged under 25 years (34.4%) or 25–34 years (32.4%) had higher rates of exposure than those aged 45–54 years (25.8%) or 55–64 years (27.0%), suggesting greater heat exposure among those in more physically demanding or outdoor roles who are earlier in their careers.

Exposure to heat at work is significantly higher among workers living in the Northen Territory (46.9%), Queensland (38.5%), Western Australia (36.7%), South Australia (33.4%) and New South Wales (29.8%) compared with Victoria (22.1%), Australian Capital Territory (15.5%) and Tasmania (8.8%). People working outside capital cities are also significantly more likely to experience heat exposure than those in capital cities (38.8% vs 25.7%). These findings are consistent with regional, outdoor and industrial work patterns, and also reflective of climate patterns by state.

Heat exposure occurs across many work locations, highlighting the pervasive impact of the Australian climate on work environments. The likelihood of exposure is highest for those working at construction sites (63.1%), outdoors (62.1%), warehouses (60.2%), and workshops or service centres (60.0%), followed by travelling (51.7%), another home (such as an employer's or client's home) (49.0%), factories (47.8%), other locations (44.9%), and at a restaurant, kitchen or café (35.2%).

Exposure is significantly more likely among workers living in areas in the most disadvantaged SEIFA quintile (quintile 1: 38.4%), compared with the least disadvantaged (quintile 5: 21.7%). Exposure is higher among those with an Advanced Diploma, Diploma or Certificate (39.3%) relative to workers holding a Bachelor degree (17.5%) or postgraduate qualifications (16.1%). Apprentices and trainees were also assessed as having significantly higher likelihood of exposure (51.1%) than non-apprentices (28.8%).

2.6. Exposure combinations and cumulative hazards

Around two-thirds (68.0%) of workers experienced probable exposure to at least one agent at work. If applied to the national workforce, this suggests about 10.2 million workers may have been exposed to at least one agent assessed through the AWES (Australian Bureau of Statistics, 2026).

Table 18 shows the prevalence of cumulative hazards amongst participants. Around half of workers (49.4%) were exposed to more than one agent, with 1 in 5 exposed to 5 or more agents (22.2%). This suggests that hazards often occur in clusters, rather than in isolation.

Table 18 Overall number of probable exposures

Number of probable exposures	Proportion (%)
0	32.0%
1	18.6%
2	10.9%
3	8.7%
4	7.6%
5+	22.2%

Base: All participants (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

2.6.1 Agent exposure combinations

Table 19 shows the most common combinations of agent exposures, for the 10 agents with the highest exposure. It highlights that many workers are exposed to more than one agent at the same time, not just one agent on its own. These combinations reflect the cumulative nature of workplace risk, particularly in roles and environments where physical, chemical and environmental hazards co-occur.

Several agents show very high levels of overlap, reflecting shared exposure pathways and work environments. There is a very strong overlap between ocular UV and solar UV exposure. Among workers exposed to ocular UV, 91.0% also experienced exposure to solar UV, and similarly, for those exposed to solar UV 91.6% are also exposed to ocular UV. Heat at work also records substantial overlap with multiple other agents including ocular UV (64.7%) and solar UV (64.8%), reflecting shared exposure in outdoor and high-sunlight environments. Workers exposed to styrene also experience exposure to heat at work (67.1%) ocular UV (70.2%) solar UV (65.2%), benzene (66.9%), and diesel exhaust (78.1%).

Table 19 Top exposure combinations for the 10 agents with the highest exposure (columns)

Any exposure	Any exposure (Top 10)									
	Heat at work	Ocular UV	Solar UV	Benzene	Diesel Exhaust	ETS incl vapes	Silica	Styrene	Wood Dust	Shiftwork
Heat at work	100.0%	59.3%	59.8%	43.7%	60.6%	46.0%	66.0%	67.1%	63.8%	50.7%
Ocular UV	64.7%	100.0%	91.6%	52.5%	69.2%	46.1%	73.9%	70.2%	71.7%	50.4%
Solar UV	64.8%	91.0%	100.0%	51.9%	69.5%	45.9%	73.1%	65.2%	68.6%	47.7%
Benzene	45.3%	49.9%	49.7%	100.0%	40.5%	41.4%	49.7%	66.9%	65.1%	40.9%
Diesel Exhaust	53.3%	55.8%	56.4%	34.4%	100.0%	40.0%	71.2%	78.1%	58.3%	49.3%
ETS incl vapes	39.7%	36.5%	36.6%	34.5%	39.3%	100.0%	45.1%	43.4%	40.6%	45.9%
Silica	30.1%	30.9%	30.8%	21.9%	36.9%	23.8%	100.0%	45.6%	59.4%	26.7%
Styrene	20.4%	19.6%	18.3%	19.7%	27.1%	15.3%	30.5%	100.0%	35.5%	22.8%
Wood Dust	17.6%	18.1%	17.5%	17.3%	18.3%	12.9%	35.9%	32.1%	100.0%	11.0%
Shiftwork	13.9%	12.7%	12.1%	10.8%	15.4%	14.6%	16.1%	20.5%	11.0%	100.0%
Formaldehyde	13.0%	12.7%	11.3%	13.8%	12.1%	11.8%	22.0%	27.7%	47.8%	11.6%
Chromium VI	13.0%	14.1%	11.2%	10.4%	13.8%	10.7%	27.6%	22.7%	30.9%	11.6%
Other PAHs	11.2%	12.4%	10.1%	10.7%	13.3%	9.4%	22.0%	25.9%	27.1%	14.1%
Artificial UV	8.5%	11.5%	7.1%	7.0%	9.7%	6.9%	15.3%	17.3%	15.9%	8.6%
Lead	7.7%	8.7%	7.3%	7.5%	9.0%	7.2%	19.5%	18.5%	21.4%	10.1%
Welding fumes	8.4%	11.3%	7.0%	6.8%	9.7%	6.5%	14.8%	16.5%	15.1%	8.5%
Nickel	6.3%	6.4%	4.3%	5.9%	5.5%	5.0%	11.8%	14.6%	16.9%	5.9%
Ionising radiation	3.4%	3.7%	3.2%	3.4%	3.4%	4.1%	6.1%	7.1%	4.1%	9.9%
Asbestos	6.2%	6.4%	6.0%	5.6%	7.5%	5.0%	14.0%	15.2%	11.4%	13.1%
Ethylene oxide	3.5%	3.6%	3.5%	4.9%	3.0%	3.4%	2.6%	6.5%	6.9%	3.9%
Mineral Oils	3.8%	3.7%	2.9%	2.7%	4.2%	2.2%	5.8%	8.7%	6.8%	5.5%
Cadmium	3.0%	3.4%	2.3%	3.6%	2.9%	3.4%	8.0%	9.4%	11.1%	5.0%
Arsenic	2.2%	2.1%	1.7%	1.9%	3.4%	2.3%	8.0%	5.9%	6.6%	5.0%
Isocyanates	1.7%	2.1%	1.7%	2.1%	1.8%	2.0%	4.9%	5.9%	7.9%	2.7%
Cobalt	1.5%	2.0%	1.2%	1.5%	1.9%	1.8%	4.1%	5.5%	4.1%	3.6%
Trichloroethylene	1.6%	1.6%	1.0%	1.4%	1.7%	1.2%	3.0%	4.5%	3.6%	3.1%
Bushfire smoke	0.8%	1.3%	1.1%	1.6%	1.5%	0.3%	1.9%	2.1%	3.9%	1.1%
1,3 butadiene	0.7%	1.1%	1.0%	1.2%	1.2%	0.3%	1.2%	1.4%	2.4%	1.8%
Acid mists	0.8%	0.8%	0.5%	0.7%	0.9%	0.7%	1.5%	2.4%	1.5%	1.3%
Beryllium	0.7%	0.8%	0.4%	0.8%	0.6%	0.9%	1.3%	2.2%	1.5%	1.3%
Tetrachloroethylene (PERC)	0.6%	0.6%	0.5%	0.6%	0.5%	0.4%	1.1%	1.7%	2.0%	1.3%
Vinyl chloride	0.1%	0.2%	0.2%	0.2%	0.3%	0%	0.2%	0.7%	0.4%	0.9%
PCBs	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.3%	0.6%	0%	0.3%
Diethyl/dimethyl sulphate	0.05%	0.03%	0.03%	0.05%	0.1%	0.2%	0.10%	0.2%	0.1%	0.1%
Ortho toluidine	0.2%	0.03%	0.03%	0.03%	0.2%	0.1%	0.06%	0.05%	0.1%	0.3%
Nitrosamines	0.1%	0%	0%	0%	0.1%	0.08%	0%	0%	0%	0.3%
Acrylamide	0.2%	0.1%	0.06%	0.1%	0.1%	0.02%	0.3%	0.4%	0.10%	0.3%
Leather dust	0%	0%	0%	0.07%	0.08%	0.08%	0%	0.20%	0.30%	0%
Epichlorohydrin	0%	0.06%	0%	0%	0%	0%	0%	0%	0%	0%
MOCA	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Base: All respondents (n=6,617).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Note: **Red shading** indicates higher overlap of agents, **green shading** indicates lower overlap.
Exposure combinations are shown only for the 10 agents with the highest exposure occurrence overall (columns).
An example of how to interpret this table is: 7.7% of people exposed to heat at work are also exposed to lead.

2.6.2 Relationship between psychosocial hazards and other work-related exposures

The following section presents findings from an analysis of the intersection between a selection of psychosocial hazards and other work-related exposures.

'I have a say in changes at work that affect me'

Workers exposed to some agents show higher disagreement with the statement 'I have a say in changes at work that affect me'. These agents may be more common in operational, production or shift-based work settings, where workers may have less influence over work design or organisational change.

Overall, 21.8% of workers disagreed with this statement, with higher disagreement observed among workers exposed to:

- Shiftwork (27.7%)
- Environmental tobacco smoke, including vapes (24.4%)
- Heat at work (23.3%)
- Lead (22.4%).

‘I work in a location where I am alone’

Responses of often or all of the time to the statement ‘I work in a location where I am alone’, are higher among workers exposed to several agents. These agents are strongly associated with field-based, mobile, isolated or specialised work contexts, where workers are more likely to operate independently rather than in shared or team-based environments.

Overall, 16.4% of workers work alone often or all of the time. This is higher for workers exposed to:

- Asbestos (36.0%)
- Mineral oils (32.2%)
- Cadmium (29.9%)
- Wood dust (26.1%)
- Other PAHs (24.9%)
- Silica (23.1%)
- Styrene (22.6%)
- Diesel exhaust (21.5%)
- Solar UV (20.7%)
- Benzene (20.7%)
- Ocular UV (20.6%)
- Heat at work (20.5%).

‘My job requires a lot of concentration’

Workers exposed to some agents are more likely to indicate ‘My job requires a lot of concentration’ often or all of the time. These agents are typically associated with high risk, tightly controlled or technically complex tasks, where sustained attention, precision and compliance with procedures are critical.

Overall, 68.3% of workers stated that their job requires a lot of concentration often or all of the time. This is higher for workers exposed to:

- Mineral oils (81.9%)
- Silica (73.2%).

2.6.3 Psychosocial hazard clusters and cumulative effects

Further analysis of psychosocial hazards was undertaken to understand how different psychosocial exposures occur together within the workforce.

Latent class analysis was used to understand these relationships. Instead of looking at each hazard on its own, latent class analysis groups workers with similar patterns of psychosocial working conditions. This includes job demands, resources and exposure to adverse behaviours.

Latent class analysis is a statistical method that groups individuals based on similarities across multiple measures. It helps identify distinct psychosocial profiles within a population. This shows how combinations of psychosocial hazards are experienced in practice, and highlights groups of workers with different psychosocial conditions. An advantage of latent class analysis is that solutions with different numbers of latent classes can be compared with each other across a variety of model fit criteria. This, along with the theoretical interpretation of the resulting latent classes, allows the final latent class grouping to be decided upon.

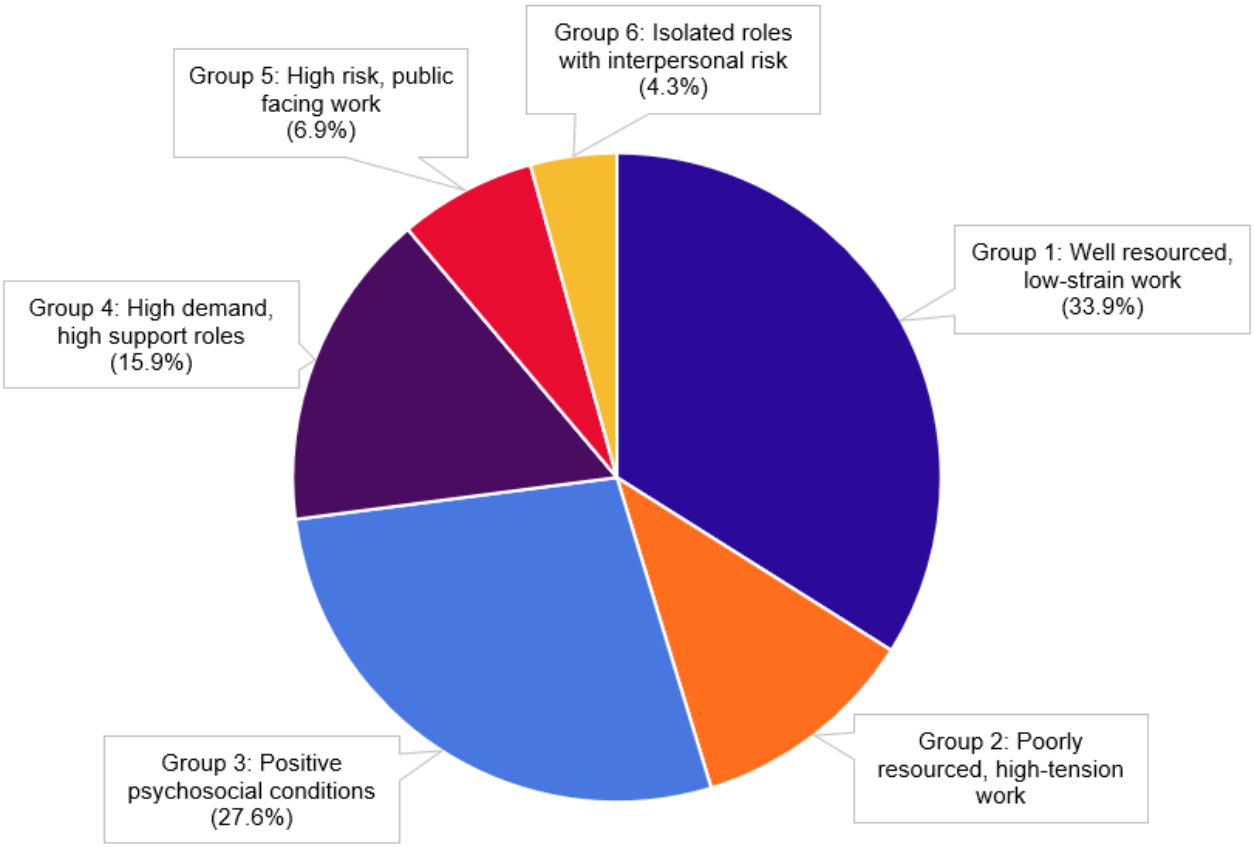
Figure 23 presents the distribution of workers across the identified psychosocial groups and Table 20 summarises the key typologies of each group.

Table 20 Psychosocial cluster distribution: typologies

Psychosocial conditions	Group	Description	Example occupations	Participants assigned (n)
Generally favourable	Group 1	Well resourced, low-strain work	Professional and office-based roles, business and IT professionals, sales workers	2,214
Poorer psychosocial working conditions	Group 2	Poorly resourced, high-tension work	Clerical roles, trade occupations, machinery operators	785
Most favourable psychosocial conditions	Group 3	Positive psychosocial conditions	Executives, managers, technicians	1,742
Strong resources, but elevated demands	Group 4	High demand, high support roles	Health and education professionals, health and welfare support workers	1,102
Least favourable psychosocial conditions	Group 5	High risk, public facing work	Community and personal support workers, protective services, customer-facing clerical roles	452
Generally positive, but often isolating	Group 6	Isolated roles with interpersonal risk	Labourers, farm and forestry workers, food preparation assistants	321

Note: One respondent was excluded from the psychosocial cluster groups (overall n=6,616), because data were missing for all 21 hazards. Anyone who answered one or more of the questions is included in the measure, with missing data handled through Full Information Maximum Likelihood (FIML) methods.

Figure 23 Psychosocial cluster distribution (% of respondents)



Cumulative effects of agent and psychosocial hazard exposure

As shown in Table 21 below, when evaluating the proportions for number of exposures by group, Group 1 is shown to have the highest proportion of no exposures, while Group 6 has the highest proportion of 5 or more exposures. There appears to be a general trend where the number of agent exposures increases as psychosocial conditions become less favourable. This may indicate that there is an increased risk of agent exposure when working in environments with less favourable psychosocial conditions. There is insufficient evidence to determine if the main driver of risk would be cumulative agent exposure, or less favourable psychosocial working conditions.

Table 21 Number of agent exposures by cluster

Number of agent exposures	Group 1	Group 2	Group 3 (most favourable)	Group 4	Group 5 (least favourable)	Group 6
0	40.8%	29.8%	32.9%	23.0%	20.3%	14.7%
1	19.2%	18.7%	19.1%	19.2%	16.5%	12.3%
2	9.5%	9.3%	10.8%	13.9%	12.7%	11.7%
3	7.2%	10.6%	8.0%	10.1%	10.6%	11.6%
4	6.7%	6.6%	8.2%	9.5%	7.5%	6.5%
5+	16.6%	25.0%	21.0%	24.4%	32.3%	43.2%

Base: n = 6,616

Note: There is one respondent missing from the psychosocial cluster groups, because they had missing data for all 21 hazards.

Psychosocial cluster conditions

This section summarises the working conditions, agent exposures and common demographics of each psychosocial group. Common occupations are reported at the ANZSCO sub-major group level.

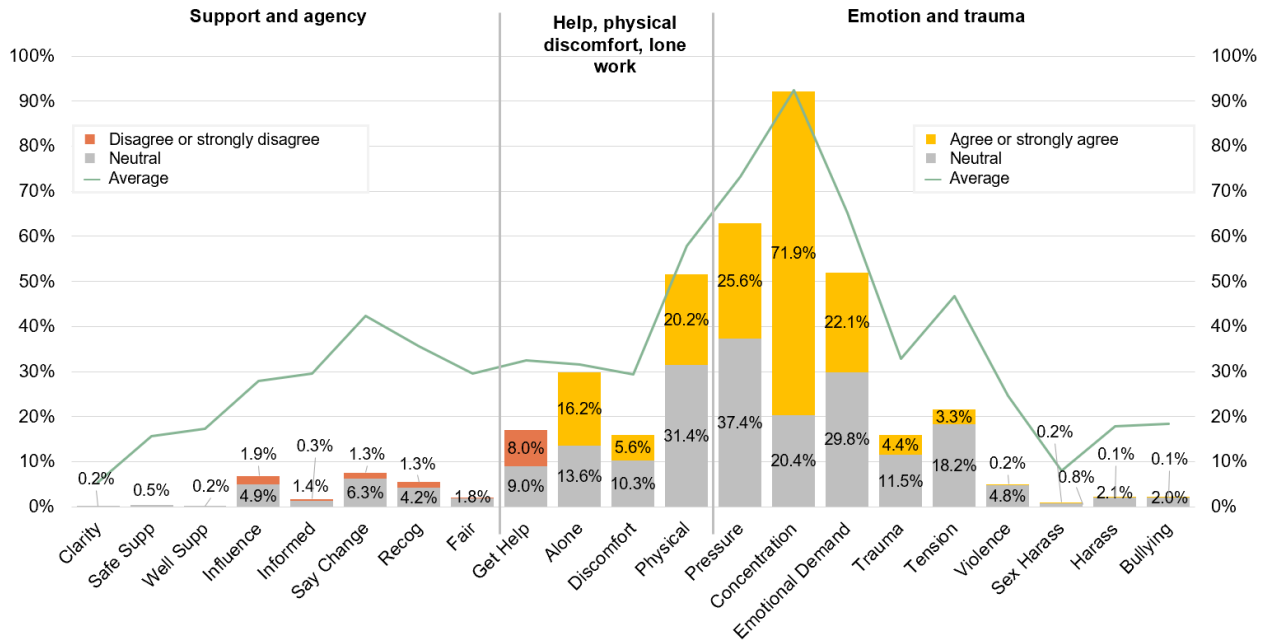
Group 3: Positive psychosocial conditions

Group 3 are workers experiencing the most favourable psychosocial working conditions across the measures assessed in this study. This group has strong job resources, alongside low levels of psychosocial or physical exposures, indicating highly supportive and well-resourced work environments. Compared to other Groups, workers in Group 3 are more likely to be men (52.2%), aged 65 or older (6.5%), and employed as executives, managers, and professionals, roles that are typically associated with greater autonomy, clearer role expectations and stronger organisational support.

In terms of agent exposure, compared to other agents, workers in Group 3 are more likely to have probable exposure to Solar UV (32.1%), Benzene (31.9%) and Ocular UV (31.3%) compared to Group 1.

Figure 24 shows how workers in Group 3 compare to the average on each of the psychosocial measures. Higher values represent poorer psychosocial conditions. Workers in Group 3 perform better than the average on measures that fall below the average line.

Figure 24 Group 3: Psychosocial clustering (optimal psychosocial conditions)



Base: n = 1,731.

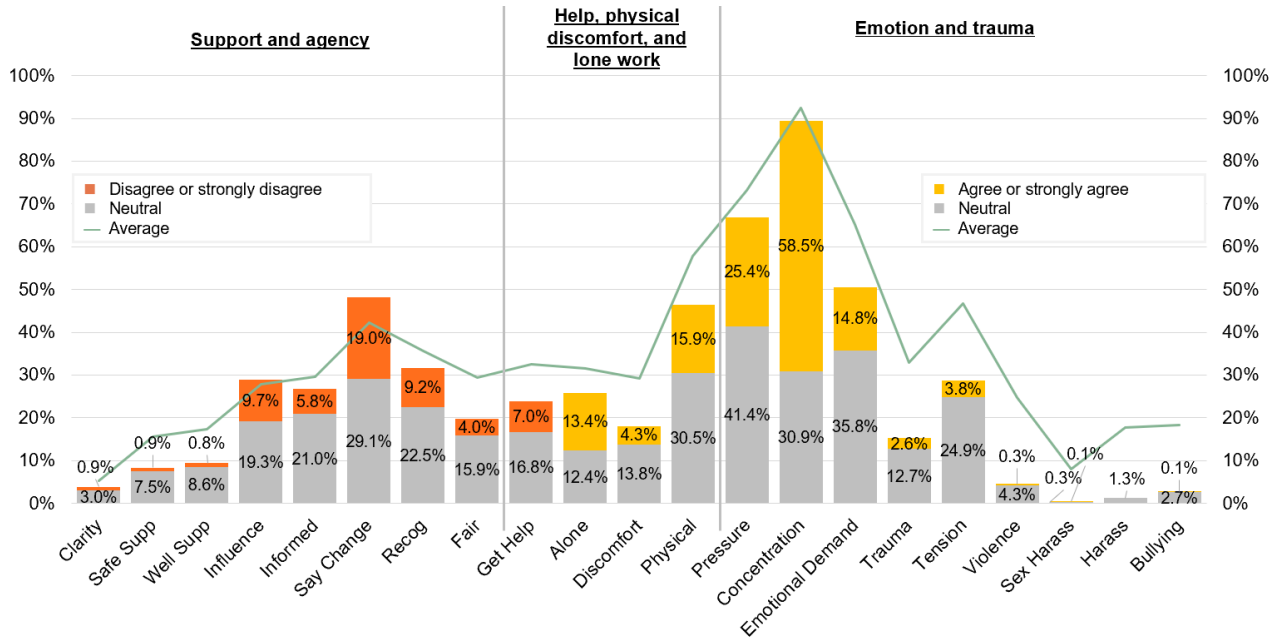
Note: Some values of 0% have been excluded to improve readability.

Group 1: Well resourced, low strain work

Group 1 is characterised by generally favourable psychosocial working conditions, with workers identifying good access to job resources and levels of communication, fairness and influence at average or better. This group often works in a team with low exposures to emotional demands, trauma and workplace bullying and violence. Workers in this Group 1 are more likely to be men (54.5%), aged 65+ (5.7%) and work in professional and office-based roles, particularly business and IT professionals, where work is less likely to involve high emotional strain.

Figure 25 shows how workers in Group 1 compare to the average on each of the psychosocial measures. Higher values represent poorer psychosocial conditions. Workers in Group 1 perform better than the average on measures that fall below the average line, and worse than the average on measures that sit above it.

Figure 25 Group 1: Psychosocial clustering (well resourced, low-strain work)



Base: n = 2,202.

Note: Some values of 0% have been excluded to improve readability.

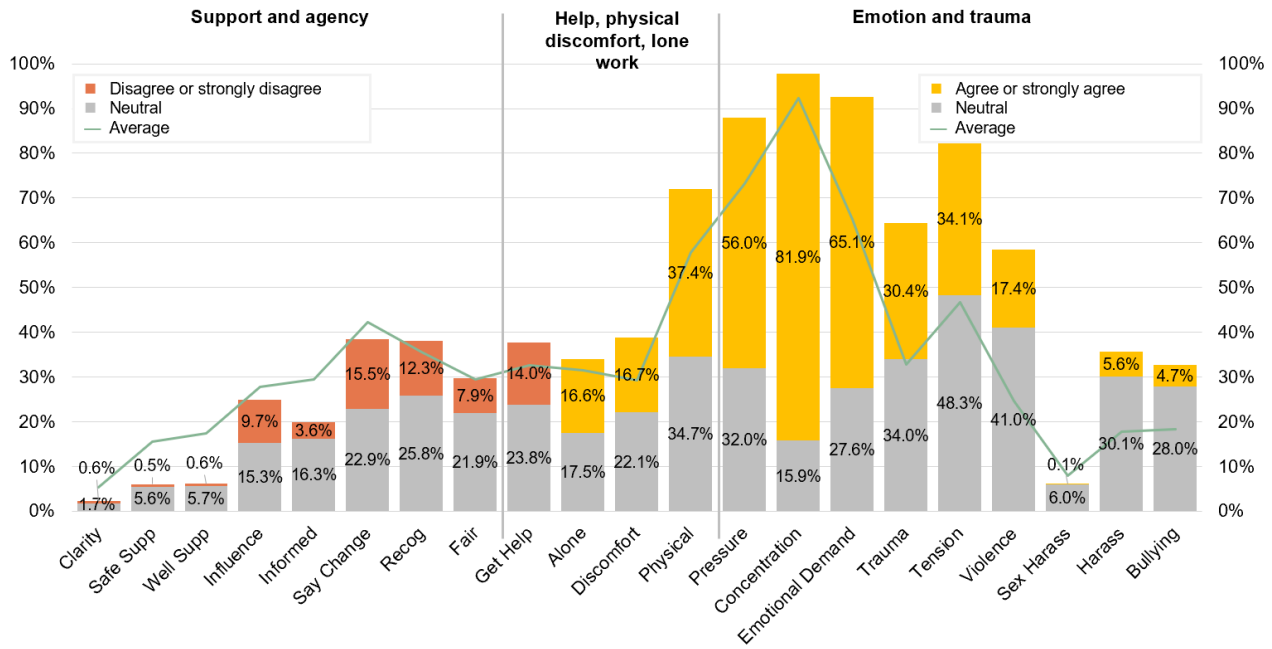
Group 4: High demand, high support roles

Group 4 is characterised by strong job resources alongside average levels of influence, recognition and fairness. This group commonly works in teams, but has elevated levels of physical demands and discomfort, combined with high levels of exposure to emotional demands, trauma, and tension, violence and bullying. Workers in Group 4 are more likely to be women (52.8%), and work as health and education professionals, legal, social and welfare professionals, as well as Protective Service Workers. These occupations are reflective of roles that often involve sustained interpersonal engagement and exposure to distressing situations.

With regards to agent exposure, workers in this group are more likely to have probable exposure to shiftwork (13.5%) compared to other psychosocial groups.

Figure 26 shows how workers in Group 4 compare to the average on each of the psychosocial measures. Higher values represent poorer psychosocial conditions. Workers in Group 4 perform better than the average on measures that fall below the average line, and worse than the average on measures that sit above it.

Figure 26 Group 4: Psychosocial clustering (high demand, high support roles)



Base: n = 1,093.

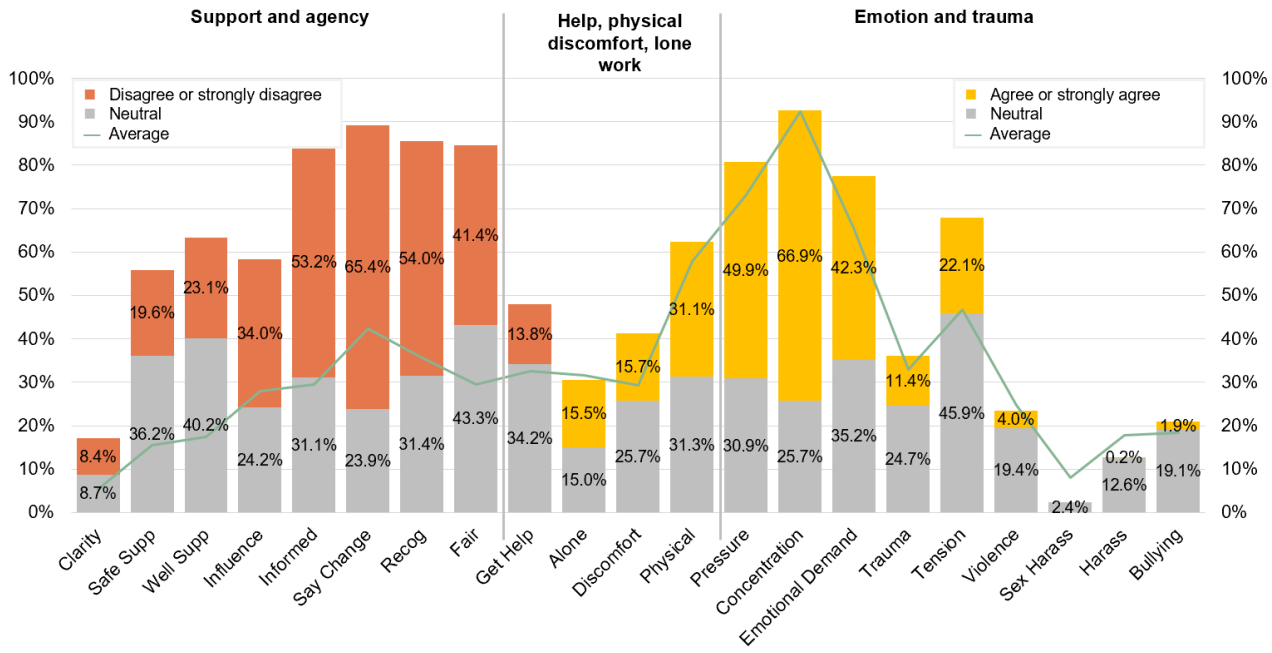
Group 2: Poorly resourced, high-tension work

Group 2 is characterised by poorer psychosocial working conditions, with workers identifying limited job resources and support, lack of recognition, fairness and influence at work alongside elevated levels of work-related tension. While this group experiences lower exposure to offensive behaviours (bullying, harassment and violence) compared with some other groups, the combination of high levels of negative psychosocial exposure suggests more challenging day-to-day work environments. There is not a strong trend towards specific demographics in Group 2, however workers are more likely to be employed as sales assistants and salespersons, and education professionals, where work may involve high task demands, time pressure or limited autonomy.

In terms of agent exposure, workers in Group 2 are more likely to have probable exposure to heat at work (35.5%) compared to those in Group 1 (23.9%) or Group 3 (26.7%).

Figure 27 shows how workers in Group 2 compare to the average on each of the psychosocial measures. Higher values represent poorer psychosocial conditions. Workers in Group 2 perform better than the average on measures that fall below the average line, and worse than the average on measures that sit above it.

Figure 27 Group 2: Psychosocial clustering (poorly resourced, high-tension work)



Base: n = 782.

Note: Some values of 0% have been excluded to improve readability.

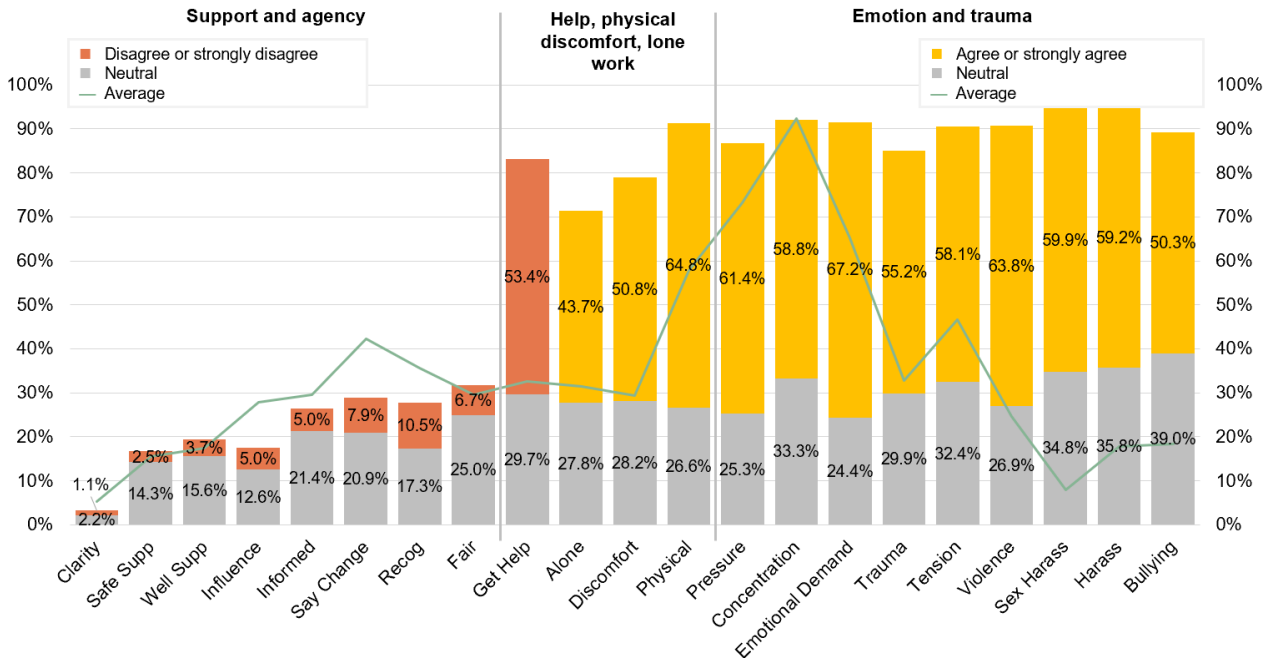
Group 6: Isolated roles with interpersonal risk

Group 6 is characterised by generally strong job resources and a positive psychosocial work environment but often involve working in isolation with the higher exposure to trauma and emotional demands, with levels of offensive behaviours which are highest across all groups. While workers in this group indicate supportive conditions overall, working in isolation appears to increase vulnerability to negative interpersonal experiences. When compared to other Groups, workers in Group 6 are more likely to be men (59.1%) and aged under 25 (23.7%), or 25–34 (33.9%). Occupations more commonly represented by this group include farm and forestry workers, and Protective Service Workers, roles that often involve solitary or dispersed work, limited supervision, and reduced access to immediate peer support.

When considering agent exposure, workers in Group 6 are more likely to have probable exposure to benzene (48.4%) compared to other psychosocial groups, as well as silica (29.9%), styrene (23.1%), wood dust (18.2%), formaldehyde (17.5%) and asbestos (15.6%) among others.

Figure 28 shows how workers in Group 6 compare to the average on each of the psychosocial measures. Higher values represent poorer psychosocial conditions. Workers in Group 6 perform better than the average on measures that fall below the average line and worse than the average on measures that sit above it.

Figure 28 Group 6: Psychosocial clustering (isolated roles with interpersonal risk)



Base: n = 317.

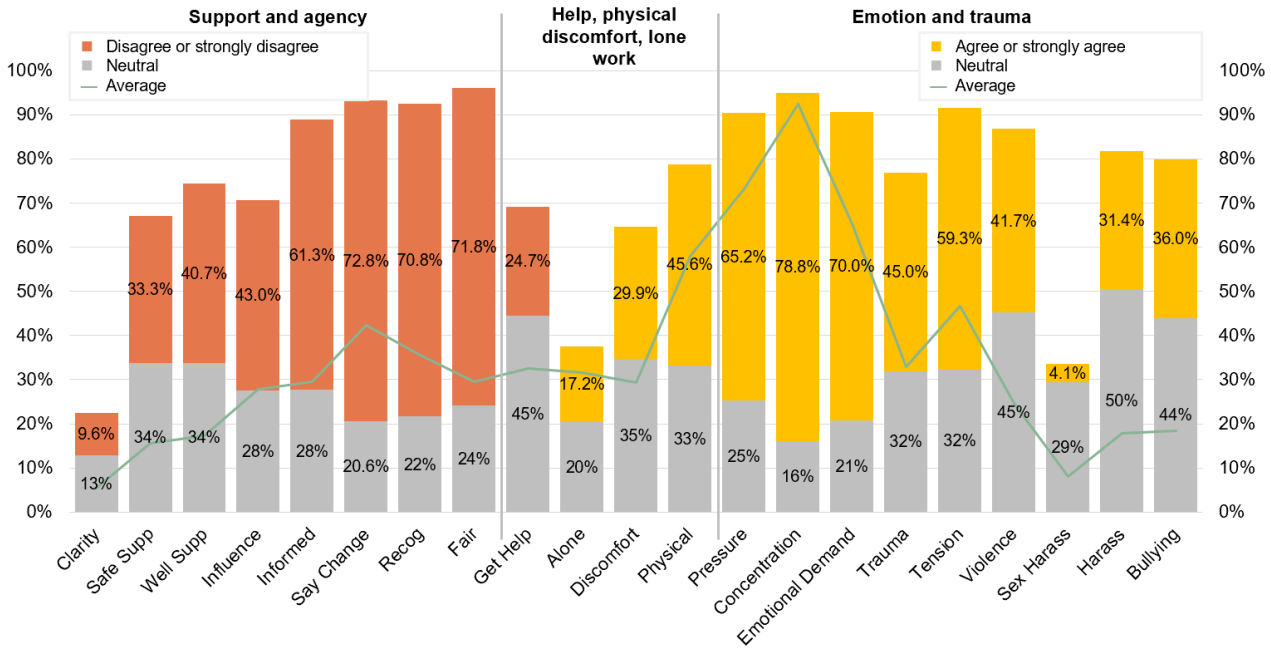
Group 5: High risk, public facing work

Group 5 represents workers experiencing the least favourable psychosocial working conditions across the measures assessed. This group is characterised by poor job resources and overall poor influence, recognition and fairness. They could also have high exposure to work-related pressure, trauma and offensive behaviours, indicating particularly challenging and high risk work environments. Compared to other Groups, workers in Group 5 are more likely to be women (53.2%), and employed as education or health professionals, health and welfare support workers or carers/aides, Protective Service Workers, or in clerical roles, where frequent interpersonal interaction, emotional labour and exposure to difficult or aggressive situations can be common in the absence of effective mitigation strategies.

Workers in this group are more likely to have probable exposure to heat at work (44.1%) and environmental tobacco smoke including vapes (40.9%) compared to other Groups 1–4.

Figure 29 shows how workers in Group 5 compare to the average on each of the psychosocial measures. Higher values represent poorer psychosocial conditions. Workers in Group 5 perform worse than the average on measures that sit above the average line.

Figure 29 Group 5: Psychosocial clustering (high risk, public facing work)



Base: n = 449.

Relationship between psychosocial groups and job satisfaction

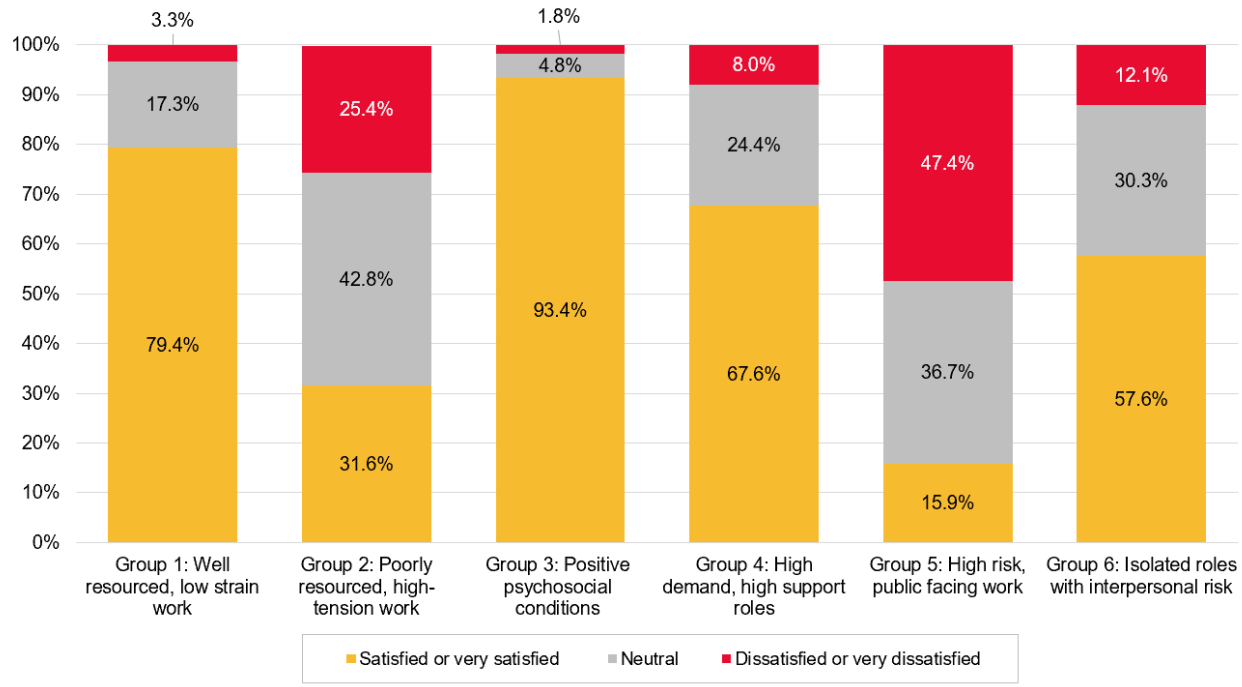
Job satisfaction varies across the psychosocial groups. This closely matches the working conditions identified in the cluster analysis. Figure 30 presents the distribution of job satisfaction by psychosocial exposure groups. Due to small cell sizes the original five level item (very satisfied, satisfied, neutral, dissatisfied, very dissatisfied) has been aggregated into the three levels presented in the figure.

Job satisfaction was most prevalent in Group 3 (positive psychosocial conditions), where approximately 9 in every 10 respondents were either satisfied or very satisfied with their job, followed by Group 1 (well resourced, low strain), where approximately 8 in every 10 respondents were satisfied or very satisfied.

Conversely, among respondents in Group 2 (poorly resourced, high-tension work) only a third of respondents were satisfied or very satisfied, and among respondents in Group 5 (high risk, public facing work) this reduced to 15.9% of respondents. These two groups (Group 2 and Group 5) also had the highest levels of dissatisfaction, with a quarter of respondents in Group 2 and almost half of respondents in Group 5 reporting being dissatisfied or very dissatisfied.

Levels of dissatisfaction were lowest for respondents in Groups 1 and 3 (3.3% and 1.8%).

Figure 30 Job satisfaction by psychosocial groups



Base: n = 6,616

Note: There is one respondent removed from the psychosocial cluster groups, due to no response for the psychosocial hazards.

2.6.4 High risk industries and occupations

Some industries have higher rates of multiple agent exposures. Figure 31 shows the proportion of workers within each industry who were probably exposed to five or more agents.

The likelihood of experiencing multiple exposures is highest in the Construction industry, with around two thirds of workers in this industry probably exposed to five or more agents (68.2%). This is followed by Agriculture, forestry and fishing (60.1%) and Mining (60.0%), indicating a concentration of cumulative exposures in physically demanding and industrial work environments.

In contrast, industries such as Financial and insurance services (1.8%) show very low levels of multiple exposure.

Figure 31 Industry by exposure to multiple agents (any 5+ exposures)

Base: Industry by any 5+ exposures. Base varies by industry from n=68 for Rental, Hiring and Real Estate Services to n=1,030 for Health Care and Social Assistance.
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Table 22 shows occupation by exposure to five or more agents, that is, the prevalence of 5+ agent exposure by certain occupations.

Occupational exposure to multiple agents is highest among trade, manual and operational roles.

At the major group occupational level, the highest prevalence is observed among Technicians and Trades Workers (57.9% of this occupation group exposed to 5+ agents), followed by Machinery Operators and Drivers (51.3%), Labourers (38.9%), and Managers (22.6%).

Within these groups, specific occupations with particularly high levels of multiple exposure include Construction Trades Workers (82.1%), Construction and Mining Labourers (81.4%) and Farm, Forestry and Garden Workers (74.6%). Elevated exposure is also observed among Automotive and Engineering Trades Workers (73.2%) and Mobile Plant Operators (64.1%), reflecting cumulative exposure in physically demanding and equipment-intensive roles.

In contrast, lower rates of multiple exposure are observed among professional, clerical and service-based occupations, including Sales Workers (10.7%). Professionals (6.6%) and Clerical and Administrative Workers (5.8%).

Table 22 Occupation by exposure to multiple agents (any 5+ exposures)

Occupation (ANZSCO major group)	Proportion (%)	Top 2 ANZSCO sub-major groups	Proportion (%)
Technicians and Trades Workers	57.9%	Construction Trades Workers	82.1%
		Automotive and Engineering Trades Workers	73.2%
Machinery Operators and Drivers	51.3%	Mobile Plant Operators	64.1%
		Machine and Stationary Plant Operators	55.9%
Labourers	38.9%	Construction and Mining Labourers	81.4%
		Farm, Forestry and Garden Workers	74.6%
Managers	22.6%	Farmers and Farm Managers	52.7%
		Specialist Managers	21.9%
Community and Personal Service Workers	13.0%	Protective Service Workers	39.7%
		Sports and Personal Service Workers	12.7%
Sales Workers	10.7%	Sales Representatives and Agents	23.3%
		Sales Support Workers	12.8%
Professionals	6.6%	Health Professionals	7.1%
		Arts and Media Professionals	6.0%
Clerical and Administrative Workers	5.8%	Office Managers and Program Administrators	9.8%
		Other Clerical and Administrative Workers	7.5%

Base: Occupation by any 5+ exposures. Base varies by occupation from n=403 for Machinery Operators and Drivers to n=1,901 for Professionals (ANZSCO major group), and n=5 for Sales Support Workers and Arts and Media Professionals to 145 for Specialist Managers (ANZSCO sub-major group). Table only shows a subgroup if the base is n=5 or higher.
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Table 23 shows the top 10 agents that workers are most commonly exposed to at any level by industry. Overall, the agents that workers are most commonly exposed to are ocular UV, solar UV, benzene, heat at work and diesel exhaust.

Across specific industries of interest, there are several agents that workers are commonly exposed to. The top exposure agents for workers in the Construction, Manufacturing, Transport, postal and warehousing, Agriculture, Forestry and Fishing and Mining industries include heat at work, ocular UV, diesel exhaust and solar UV. This is also the case for workers in the Health Care and Social Assistance industry, with the exception of diesel exhaust, however this is still ranked as the seventh highest exposure for this industry.

Environmental tobacco smoke (including vapes) is also one of the top 10 exposures for workers across all industries. This suggests there may be gaps in the enforcement of smoking restrictions across work environments in Australia.

These findings highlight the importance of ongoing identification of hazards in the working environment, the assessment and control of risks, and review of control measures. WHS risks must be managed by persons conducting a business or undertaking, officers, and designers, manufacturers, importers, suppliers or installers of plant, substances or structures.

Table 23 Top 10 exposure agents by industry

Rank	All workers	Accommodation and Food Services	Administrative and Support Services	Agriculture, Forestry and Fishing	Arts and Recreation Services	Construction	Education and Training	Electricity, Gas, Water and Waste Services	Financial and Insurance Services	Health Care and Social Assistance	Information Media and Telecommunications	Manufacturing	Mining	Other Services	Professional, Scientific and Technical Services	Public Administration and Safety	Rental, Hiring and Real Estate Services	Retail Trade	Transport, Postal and Warehousing	Wholesale Trade
	N=6,617	N=302	N=214	N=150	N=114	N=517	N=664	N=82	N=208	N=1,030	N=104	N=416	N=126	N=218	N=573	N=417	N=68	N=447	N=277	N=173
1	Ocular UV (32.6%)	Heat at work (33.0%)	Benzene (47.6%)	Ocular UV (76.3%)	Benzene (42.2%)	Silica (71.8%)	Solar UV (36.1%)	Diesel Exhaust (50.6%)	Benzene (17.1%)	Benzene (27.6%)	Benzene (23.7%)	Heat at work (41.3%)	Diesel Exhaust (71.5%)	Ocular UV (41.7%)	Benzene (22.5%)	Solar UV (31.6%)	Ocular UV (42.8%)	ETS incl vapes (29.0%)	Ocular UV (53.0%)	Heat at work (37.8%)
2	Solar UV (32.4%)	ETS incl vapes (32.5%)	Heat at work (43.5%)	Solar UV (74.8%)	Solar UV (36.2%)	Solar UV (67.5%)	Ocular UV (33.1%)	Ocular UV (49.6%)	ETS incl vapes (12.9%)	ETS incl vapes (22.5%)	ETS incl vapes (16.4%)	Ocular UV (38.8%)	Heat at work (64.3%)	Benzene (40.8%)	Ocular UV (15.7%)	Ocular UV (31.2%)	Solar UV (42.7%)	Benzene (25.8%)	Diesel Exhaust (52.2%)	Benzene (37.5%)
3	Benzene (31.0%)	Benzene (21.8%)	Solar UV (40.3%)	Diesel Exhaust (72.8%)	Ocular UV (35.7%)	Ocular UV (66.5%)	Benzene (23.3%)	Solar UV (47.8%)	Ocular UV (5.6%)	Solar UV (21.1%)	Diesel Exhaust (14.5%)	Diesel Exhaust (32.4%)	Silica (63.8%)	Solar UV (40.7%)	Solar UV (15.4%)	Diesel Exhaust (27.2%)	Benzene (39.0%)	Heat at work (24.8%)	Solar UV (51.5%)	Solar UV (36.1%)
4	Heat at work (29.9%)	Solar UV (21.0%)	Ocular UV (37.1%)	Benzene (56.1%)	ETS incl vapes (34.2%)	Diesel Exhaust (56.8%)	Heat at work (21.3%)	Heat at work (41.0%)	Solar UV (5.6%)	Ocular UV (21.0%)	Ocular UV (11.8%)	Solar UV (31.6%)	Ocular UV (48.1%)	Diesel Exhaust (40.4%)	ETS incl vapes (15.2%)	Benzene (24.7%)	Heat at work (32.7%)	Diesel Exhaust (22.1%)	Heat at work (43.0%)	ETS incl vapes (35.3%)
5	Diesel Exhaust (26.3%)	Ocular UV (20.0%)	Diesel Exhaust (29.5%)	Heat at work (55.4%)	Heat at work (32.6%)	Heat at work (55.8%)	ETS incl vapes (11.4%)	ETS incl vapes (24.8%)	Heat at work (4.6%)	Heat at work (15.8%)	Solar UV (10.2%)	Benzene (31.0%)	Solar UV (47.1%)	Heat at work (36.1%)	Heat at work (10.9%)	Heat at work (23.0%)	Diesel Exhaust (29.3%)	Ocular UV (16.3%)	Benzene (41.5%)	Ocular UV (35.2%)
6	ETS incl vapes (25.8%)	Diesel Exhaust (15.1%)	ETS incl vapes (24.4%)	Silica (30.8%)	Diesel Exhaust (20.8%)	ETS incl vapes (45.5%)	Diesel Exhaust (7.3%)	Benzene (24.6%)	Diesel Exhaust (2.7%)	Shiftwork (11.8%)	Shiftwork (7.4%)	ETS incl vapes (22.6%)	ETS incl vapes (36.0%)	Styrene (26.9%)	Diesel Exhaust (10.1%)	ETS incl vapes (21.1%)	ETS incl vapes (22.2%)	Solar UV (15.8%)	ETS incl vapes (33.3%)	Diesel Exhaust (33.1%)
7	Silica (13.6%)	Shiftwork (7.8%)	Wood Dust (19.0%)	Wood Dust (27.7%)	Shiftwork (11.0%)	Benzene (41.7%)	Wood Dust (4.6%)	Silica (22.4%)	Styrene (2.4%)	Diesel Exhaust (8.7%)	Heat at work (7.3%)	Styrene (17.0%)	Shiftwork (29.0%)	ETS incl vapes (23.3%)	Ionising radiation (6.8%)	Shiftwork (11.9%)	Styrene (11.6%)	Styrene (7.6%)	Styrene (20.9%)	Wood Dust (12.9%)
8	Styrene (9.1%)	Styrene (5.5%)	Styrene (8.8%)	ETS incl vapes (22.9%)	Wood Dust (6.4%)	Wood Dust (33.5%)	Formaldehyde (3.5%)	Styrene (16.5%)	Ionising radiation (2.1%)	Ionising radiation (3.7%)	Silica (5.6%)	Chromium VI (14.7%)	Asbestos (22.1%)	Silica (10.9%)	Silica (5.7%)	Silica (5.9%)	Wood Dust (4.4%)	Shiftwork (6.3%)	Shiftwork (17.8%)	Formaldehyde (11.0%)
9	Wood Dust (8.2%)	Wood Dust (2.2%)	Silica (7.6%)	Styrene (16.5%)	Styrene (6.4%)	Chromium VI (30.9%)	Silica (3.2%)	Shiftwork (10.9%)	Silica (1.6%)	Formaldehyde (2.7%)	Styrene (3.7%)	Formaldehyde (14.3%)	Styrene (21.5%)	Chromium VI (10.0%)	Shiftwork (4.9%)	Styrene (5.5%)	Silica (3.9%)	Wood Dust (5.5%)	Silica (14.0%)	Styrene (10.5%)
10	Shiftwork (8.2%)	Silica (1.6%)	Formaldehyde (6.0%)	Shiftwork (13.1%)	Formaldehyde (3.3%)	Formaldehyde (21.8%)	Shiftwork (2.1%)	Asbestos (10.5%)	Shiftwork (1.4%)	Ethylene-oxide (2.0%)	Lead (0.8%)	Welding fumes (13.9%)	Benzene (18.5%)	Artificial UV (9.8%)	Styrene (4.1%)	Lead (2.3%)	Chromium VI (2.8%)	Silica (4.3%)	Formaldehyde (9.7%)	Silica (10.1%)

Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

Table 24 shows the agents with highest exposure in occupation groups of interest. Similarly to industry, ocular UV, diesel exhaust, heat at work and solar UV are top agents that are common to all three occupations. This further highlights the importance of considering the unique Australian environment, where temperatures and UV are often high, when assessing work-related hazards and managing the risk to workers.

There are also several top exposure agents that are unique to each of the selected occupations. Among automotive and engineering trades workers, rates of exposure are also high for styrene (47.7%) and chromium VI (43.8%), reflecting fabrication, machining and welding activities. Specialist managers experience elevated exposure to benzene (34.4%), indicating exposure associated with oversight of industrial or technical environments, and environmental tobacco smoke (22.3%). For construction trades workers, other prominent exposures are silica (86.2%) and wood dust (55.2%), highlighting a concentration of particulate hazards linked to construction materials and on-site work activities.

Table 24 Key occupations: top exposure agents

Occupation (ANZSCO Sub-major group)	Agent	Probable exposure
Automotive and Engineering Trades Workers	Ocular UV	76.3%
	Diesel Exhaust	72.2%
	Heat at work	68.3%
	Solar UV	57.9%
	Styrene	47.7%
	Chromium VI	43.8%
Specialist Managers	Benzene	34.4%
	Ocular UV	27.3%
	Solar UV	25.1%
	Diesel Exhaust	23.1%
	Environmental tobacco smoke incl. vapes	22.3%
	Heat at work	22.3%
Construction Trades Workers	Silica	86.2%
	Solar UV	74.0%
	Ocular UV	70.2%
	Heat at work	61.1%
	Wood Dust	55.2%
	Diesel Exhaust	54.2%

Base: Varies by occupation. Automotive and Engineering Trades Workers (n=156), Specialist Managers (n=633), Construction trades workers (n=125).
Source: Safe Work Australia, 2026 Australian Worker Exposure Survey.

2.6.5 High risk worker and job/workplace profiles by agent and psychosocial hazard associations

High risk worker profiles

Worker demographics

Some agents are more common among younger workers, men, and workers who live outside capital cities.

Age groups – by agent exposure

Younger workers are more likely than other workers to be assessed as exposed to a range of physical and chemical hazards. This highlights the importance of early prevention and protection, particularly for workers who may be in the early stages of their careers.

Workers aged under 25 years show distinct exposure patterns across several agents. A third of workers in this age group had more prevalent exposure to heat at work (34.4%), followed closely by exposure to environmental tobacco smoke including vapes (34.3%). Workers under 25 years also had higher rates of styrene exposure (11.1%), shiftwork (9.8%), and formaldehyde exposure (8.5%). Although less common, exposure to legacy and heavy-metal hazards is still evident, with asbestos exposure at 3.2% in those aged under 25 years. This is higher than the proportion of workers assessed as exposed in the overall survey population (2.6%).

Comparatively, workers aged 55 or older are more likely to be exposed to benzene (33.6%) than those aged 24 or under (25.8%).

In terms of psychosocial hazards, there are also differences in agreement (agree + strongly agree) and disagreement (disagree + strongly disagree) between age groups. For the statement, ‘I have a say in how and when my work is done’, those aged under 25 are more likely to disagree (18.1%) compared to those aged 25 or older (11.4%). Comparatively, workers aged 65 or older are more likely to agree with the statements ‘I feel informed about changes at work’ (78.6% vs 68.7% of those aged 44 or younger), ‘I have a say in changes at work that affect me’ (72.0% vs 56.4% of those aged under 65), ‘I receive fair recognition for my work’ (75.0% vs 63.3% of those aged under 65), and ‘In my organisation, people are treated fairly’ (79.9% vs 68.9% of those aged 25–64 years).

Workers aged 25–34 are more likely to report experiencing bullying often or all the time (7.5%) compared to workers aged 45–54 (4.7%), 55–64 (4.1%), and 65–74 (1.6%).

Those aged 34 years or under are more likely to report that they often or all the time:

- Work in unpleasant physical conditions (14.0%), compared to ages 35–54 (11.8%) and 55+ (7.5%).
- Experience sexual harassment (4.4%) compared to ages 35–54 (2.5%) and 55+ (1.3%).
- Experience verbal abuse, threats or violence (11.6%) compared to ages 35–54 (8.0%) and 55+ (6.1%).

Gender – by agent exposure

Overall, men were more likely to be exposed to the majority of physical, chemical and process-related agents compared to women.

Two in 5 men had exposure to ocular UV (42.5%) and solar UV (41.6%), with exposure to heat at work (38.6%) also notably prevalent, reflecting greater exposure to outdoor and physically demanding work environments.

Exposure to processes that involve products of combustion, such as diesel exhaust (38.5%) and environmental tobacco smoke including vapes (29.4%), is also more likely among men. Solvent, radiation and process-related exposures also occur in higher proportions among men, including benzene (35.3%), and artificial UV (6.5%). Differences are also observed for particulate and industrial hazards, with male workers experiencing exposure to silica (22.6%), styrene (15.2%), wood dust (13.2%), and shiftwork (10.7%).

Men also had higher likelihood of exposure to highly regulated and legacy hazards, including formaldehyde (10.2%), chromium VI (10.1%), lead (6.8%) and welding fumes (6.4%).

Metro/regional – by agent exposure

Those working in regional areas were more likely to experience exposure to a range of physical, chemical and environmental hazards than workers in capital cities. This is likely a reflection of the differing industry profiles of regional workplaces. Industries where workers are more likely to work in regional areas include Agriculture, Forestry and Fishing (6.5% vs 0.8% in capital cities) and Mining (4.4% vs 1.0% in capital cities). Notably, multiple agent exposures and exposure to environmental or process related hazards is more common within these industries (see section 2.5.4 High risk industries and occupations). This likely indicates that higher exposure to agents among those working in regional areas is driven by the type of work being performed, rather than the location itself.

Two in five workers in regional areas had exposure to ocular UV (42.1%) and solar UV (42.2%), alongside elevated exposure to heat at work (38.8%) reflecting greater exposure to environmental conditions.

Regional workers also had a substantially higher likelihood of exposure to diesel exhaust (38.5%), with additional differences observed for silica (17.6%), styrene (10.9%) and wood dust (10.5%), indicating increased exposure to dusts and industrial agents. Organisational and process-related exposures are also more common, including shiftwork (9.8%), artificial UV (5.1%), welding fumes (5.1%), and other PAHs (7.6%).

Although less common overall, regional workers are more likely to be exposed to several regulated and environmental hazards, including asbestos (3.3%) and arsenic (1.9%).

Contrastingly, those working in metropolitan areas are more likely to be exposed to ionising radiation (3.4%) and ethylene oxide (2.3%) compared to those working in regional areas (1.5% and 1.2% respectively).

Socioeconomic factors for exposure

Workers living in areas of greater socio-economic disadvantage (SEIFA quintile 1) and whose highest educational qualification is an Advanced Diploma, Diploma or Certificate were more likely to be assessed with higher levels of exposure across many agents.

SEIFA/socio-economic disadvantage – by agent exposure

Workers living in areas of greater socio-economic disadvantage (SEIFA quintile 1) were more likely to be exposed across a wide range of agents. Two in 5 had exposure to ocular UV (40.8%) and solar UV (40.1%), alongside exposure to heat at work (38.4%), indicating greater exposure to outdoor and physically demanding work environments.

Chemical and process-related exposures are also more common for workers living in areas of greatest socio-economic disadvantage, including benzene (37.4%), diesel exhaust (35.9%). Exposure to dusts and industrial agents is notably higher among this group, including silica (17.0%), styrene (12.3%), and wood dust (10.9%). Organisational and task-related exposures such as shiftwork (10.8%), artificial UV (5.4%), and welding fumes (5.2%) are also more prevalent.

Although lower in overall prevalence, workers in the most disadvantaged quintile are more likely to have exposure to regulated and environmental hazards like asbestos (4.3%) and other PAHs (8.6%).

Overall, these findings indicate greater cumulative exposure burden among workers in more socio-economically disadvantaged areas.

Education – by agent exposure

Workers whose highest educational qualification is an Advanced Diploma, Diploma or Certificate were more likely to be exposed across a range of hazards. This likely reflects their greater representation in trades, manual occupations and site-based roles.

Two in 5 had exposure to both ocular UV (42.1%) and solar UV (42.0%), followed by heat at work (39.3%), indicating greater exposure to outdoor or physically demanding work environments.

Elevated levels of exposure are also observed in chemical and process-related exposures, including diesel exhaust (36.7%), benzene (34.8%), and environmental tobacco smoke including vapes (29.5%). Exposure to dust and industrial agents remain notable, along with silica (19.2%), styrene (11.7%), and wood dust (11.2%).

Organisational and task-related exposures such as shiftwork (9.3%), artificial UV (6.2%), and welding fumes (6.0%) are also more prevalent. Additional differences are also observed for chromium VI (8.6%), formaldehyde (7.7%), other PAHs (7.0%), lead (5.9%) and nickel (4.5%).

People who ‘speak only’ English at home – by agent exposure

A third of workers who speak only English at home had exposure to ocular UV (35.1%) and solar UV (34.8%), alongside elevated exposure to heat at work (32.1%), indicating greater exposure to outdoor work environments. Exposure to combustion and process-related hazards is also more common, including diesel exhaust (29.1%).

Workers in this group are more likely to be assessed as exposed to dusts and chemical agents, for silica exposure (15.2%), styrene (9.9%), and wood dust (9.3%). Additional differences are observed for chromium VI (6.3%), artificial UV (4.3%), lead (4.2%), and welding fumes (4.1%) Exposure to other environmental hazards is also evident amongst this group, including other PAHs (5.9%), asbestos (2.9%), and arsenic (1.3%).

Overall, these findings indicate higher exposure prevalence across multiple agents among workers who speak only English at home.

Chronic health conditions – by agent exposure

Workers with certain long-term physical health conditions had higher likelihood of exposure across a range of chemical and environmental hazards. For example, workers who experienced a stroke show substantially greater likelihood of exposure to solar UV (62.7%) and diesel exhaust (55.1%) compared with those who have indicated no long-term health conditions.

Workers with arthritis also show higher proportions of exposure to several agents, including benzene (35.9%), diesel exhaust (31.9%), silica (14.3%) chromium VI (6.4%), and other PAHs (5.6%), suggesting concentration in physically demanding or industrial roles.

Elevated levels of exposure is further evident among workers with lung conditions (including COPD or emphysema), who had exposure to benzene (45.1%), styrene (22.9%), wood dust (12.8%), formaldehyde (17.8%), shiftwork (12.3%), asbestos (6.7%) and other PAHs (9.7%) in greater proportions than other workers, highlighting the overlap between respiratory conditions and exposure to airborne hazards.

Distinct patterns are also observed for other chronic conditions. Workers with asthma are more likely to be assessed as having exposure to a range of agents including environmental tobacco smoke including vapes (32.8%), silica (13.8%), wood dust (9.2%), formaldehyde (7.4%), chromium VI (6.1%), artificial UV (5.1%), welding fumes (4.6%), asbestos (3.3%), Trichloroethylene (1.4%) and other PAHs (6.9%) consistent with increased exposure to irritants and particulates. Those with kidney disease show elevated exposure to silica (25.9%), styrene (24.1%), wood dust (20.4%), and other PAHs (11.5%), while workers with heart disease exhibit higher exposure to nickel (5.3%) and other PAHs (6.9%).

These patterns underscore differences in occupational exposure profiles by health status, though without implying a causal relationship between exposure and health conditions.

High risk job/workplace profiles

There are significant differences in agent exposure associated with apprenticeship and trainee status, job tenure and job satisfaction.

Apprentices/trainees – by agent exposure

Apprentices and trainees had higher likelihood of exposure to many physical, chemical and process-related hazards. Half were assessed as having exposure to heat at work (51.1%). Many also had exposure to ocular UV (52.7%) and solar UV (50.9%), reflecting strong concentration in outdoor, trade and site-based roles. Several solvent and combustion-related exposures are also common, including benzene (45.0%), diesel exhaust (44.7%), and environmental tobacco smoke including vapes (44.5%).

Exposure to dusts and chemicals is particularly prevalent, with silica exposure assessed for 35.7%, styrene for 33.6%, wood dust for 21.3%, and formaldehyde for 24.8% of apprentices and trainees.

Apprentices and trainees also demonstrate markedly higher likelihood of levels of exposure to a range of regulated and legacy hazards, including other PAHs (23.2%), chromium VI (20.5%), lead (17.0%), artificial UV (15.1%), welding fumes (14.9%), ionising radiation (12.1%), and asbestos (13.7%), as well as lower-prevalence agents such as nickel (11.1%), cadmium (8.2%), mineral oils (7.3%), and isocyanates (6.4%).

Overall, these findings indicate a particularly high and broad exposure burden among apprentices and trainees, highlighting the importance of early and targeted exposure prevention during training and the early stages of workers' careers.

Job tenure – by agent exposure

Exposure patterns vary by job tenure. Workers who have been in their role longer generally were assessed as having a higher likelihood of exposure to several chemical and process-related hazards.

For example, exposure to benzene is greater among workers with 4–10 years (33.9%) and more than 10 years (33.4%) of tenure compared with those employed for less than 12 months (26.2%) or 1–3 years (29.3%). A similar pattern is observed for diesel exhaust, with exposure greatest among workers with more than 10 years' tenure (29.4%), compared with those with less than 12 months (23.8%) or 1–3 years (24.8%).

In contrast, exposure to environmental tobacco smoke including vapes is more common among workers with shorter tenure, including those employed for less than 12 months (26.1%), 1–3 years (29.1%) and 4–10 years (27.0%), compared with workers with more than 10 years' tenure (20.5%).

Workers with longer tenure also had higher likelihood of exposure to several industrial hazards. For wood dust, formaldehyde, ionising radiation, cadmium, exposure occurs in greater proportions of workers among those with 4–10 years and more than 10 years in their role, than those with less than 12 months and 1–3 years. Lead exposure also increases in prevalence with tenure, with exposure at greater levels among those with more than 10 years of employment or 4–10 years (both 4.7%), and 1–3 years (3.5%), compared to workers employed for less than 12 months (1.3%).

Overall, these findings suggest that longer job tenure is associated with greater exposure to a range of chemical and industrial hazards.

Job satisfaction – by agent exposure

Exposure patterns vary by job satisfaction, with higher likelihood of exposure generally among workers who are less satisfied with their job. Workers were grouped by satisfaction level, into dissatisfied (combining dissatisfied or very dissatisfied), neutral, and satisfied (combining satisfied or very satisfied).

Workers who indicate being dissatisfied (34.9%), or neutral (33.9%) show higher likelihood of exposure to heat at work, compared with those who are satisfied (28.1%). A similar pattern is observed for ocular UV exposure, which is more common among dissatisfied workers (37.9%) than among those who are satisfied (31.8%).

Exposure to environmental tobacco smoke including vapes is also higher among workers who are dissatisfied (30.6%) and those who feel neutral (33.6%), compared with workers who are satisfied (23.1%). In contrast, formaldehyde exposure is highest among workers who feel neutral about their job (8.2%), compared with those who are dissatisfied (4.6%), suggesting differing exposure profiles across job satisfaction levels.

Overall, these findings indicate that higher exposure to several physical and environmental hazards is associated with lower levels of job satisfaction.

3. Accreditation

This research was undertaken in accordance with ISO 20252:2019 Market, Opinion and Social Research Standard, The Research Society (formerly AMSRS) Code of Professional Behaviour, the Australian Privacy Principles and the Privacy (Market and Social Research) Code 2021.

The Social Research Centre is an accredited Company Partner of The Research Society with all senior staff as full members and several senior staff QPMR accredited. The Social Research Centre is also a member of the Australian Data and Insights Association (ADIA formerly known as AMSRO) and bound by the Market and Social Research Privacy Principles/Code.

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Appendix 1: Methodology

Method summary

The AWES 2026 used a mixed-methods design. It combined a large quantitative survey with qualitative research to provide a national picture of work-related hazard exposure and more detail about workers' experiences.

The quantitative survey was the main part of the study and the results are presented in this report. It produced estimates of exposure to a range of work-related hazards across industries, occupations andworker groups. We collected data using a structured questionnaire delivered online and by telephone. Exposure assessments for the chemical and physical hazards were carried out in the OccIDEAS system. OccIDEAS is a web-based platform used for task-based occupational exposure assessment. We then weighted the results, so they reflect the Australian working population.

The quantitative survey also included a psychosocial hazards module that was completed by all respondents. The qualitative research added context to the survey results. It included in-depth interviews and a 3-day online discussion board with workers who opted in through the survey. This component explored how workers recognise hazards, manage risks in practice, and access information and reporting pathways. The results from the qualitative research are available in an accompanying report.

Together, the quantitative and qualitative findings provide an evidence base to support prevention-focused WHS action, including identifying priority hazards and where exposure is most concentrated.

Quantitative approach and method

The AWES 2026 includes a cross-sectional survey design to collect national data on Australian workers' exposure to work-related hazards. A survey approach was selected to enable measurement of probable exposure across a large and diverse workforce, allowing results to be compared across industries, occupations and worker characteristics. The study was designed to generate population-level estimates of probable exposure to a broad range of work-related hazards, supporting analysis of patterns and prevalence at a national level.

Data were collected from workers aged 15 years and over with a structured questionnaire administered via a mixed-mode approach including online survey completion and telephone interviewing, to maximise coverage and participation across different worker groups. The questionnaire captured information based on the last working week on workers' current employment, demographic characteristics and job tasks.

In addition, questions from the OccIDEAS system asked about tasks which might involve exposure to particular chemical and physical agents. Established WHS concepts were used to guide question design, and the survey instrument was developed and tested to ensure clarity, consistency and suitability for use across industries and work contexts. Survey data were subsequently weighted to align with Australian workforce benchmarks.

The psychosocial hazards module measured exposure by asking the extent to which participants agreed with a range of statements, or how frequently they experienced a range of different situations at work.

Fieldwork period

A pilot phase of the AWES was conducted to test and refine all core elements of the survey prior to the main fieldwork. Using the same mixed-mode design planned for the full survey, including Life in Australia™ (probability-based online), non-probability online panels, and CATI, the pilot assessed questionnaire performance, respondent burden, operational processes, and the functionality of the OccIDEAS exposure assessment integration. Fieldwork for the pilot phase was undertaken between August and October 2025, achieving 489 completed interviews across modes. Fieldwork monitoring and quality assurance processes were applied, with findings used to inform refinements to survey design, fieldwork assumptions, resourcing and budgeting for the main AWES.

Main fieldwork data collection was conducted over a single, coordinated fieldwork period using a mixed-mode, multi-source approach. Fieldwork across all modes was overlapping, with different sample sources brought online at different points to support coverage, manage quotas and ensure timely completion. Fieldwork ran from 02 December 2025 – 18 February 2026, with a scheduled pause over the Christmas and New Year period before resuming in January. This also allowed time for people to resume work after the holiday period.

Online data collection was conducted via the Life in Australia™ panel, supplemented by non-probability online panel sources (CINT and Octopus Research). Computer assisted telephone interviewing (CATI) fieldwork was conducted with interviewers administering the survey by telephone. In addition, a direct-to-industry survey was deployed during the fieldwork period to support participation from workers in specific industries and roles that are difficult to reach through general population panels.

Staggering fieldwork across modes allowed for monitoring of sample composition in real time and adjustment of recruitment across sources, as required to meet target quotas and achieve balanced coverage of industries and occupations.

Survey panels and sample sources

Data were collected using a mixed-mode, multi-source sampling approach, combining probability-based, non-probability and targeted recruitment methods. This approach was designed to maximise coverage of the Australian workforce, including workers in industries and roles with varying exposure profiles.

Life in Australia™

Life in Australia™ is the Social Research Centre's national probability-based online panel, established in 2016. Panel members are recruited using probability sampling methods (Random Digit Dialling and address-based sampling), meaning each member has a known chance of selection and cannot self-enrol. Surveys administered via Life in Australia™ are completed online, with offline members supported through telephone or SMS-to-web options where required. This panel provides a high-quality benchmark sample for population-level analysis and formed a core component of the survey sample.

Computer Assisted Telephone Interviewing (CATI)

CATI interviews were conducted using Random Digit Dialling to reach Australian workers via landline and mobile telephones. This mode supported inclusion of participants who may be less likely to participate in online research and enabled interviewer assistance for more complex survey content. CATI formed part of the mixed-mode design and was administered using the same questionnaire content as the online survey, with wording adapted for interviewer delivery.

Non-probability online panels: CINT and Octopus Research panels

CINT is an international non-probability online panel provider used to supplement the probability-based sample. CINT provides access to a large pool of Australian respondents and was used to boost sample size and ensure adequate representation across key subgroups and exposure profiles. While non-probability in nature, CINT sample was collected using the same survey instrument and quality controls as other online modes and was combined with other sources at the analysis stage.

The Octopus Research online panel is an Australian non-probability panel used as an additional top-up sample. Octopus was utilised to address shortfalls in specific subgroups and to support timely completion of fieldwork. As with CINT, respondents completed the same online questionnaire and were subject to standard data quality checks prior to inclusion in the final dataset.

Industry survey

A direct-to-industry approach was also conducted, involving targeted recruitment of workers through industry contacts and networks. This approach enabled participation from workers in specific industries or roles that are difficult to reach through general population panels, and supported coverage of specialised exposure contexts. Responses collected through the direct-to-industry survey were integrated with other data sources following standard cleaning, validation and de-identification procedures.

Sample design and size

The total sample size was n=6,617 across each of the following sample sources:

- Life in Australia™: n=3,510
- CATI: n=1,034
- Non-probability (CINT & Octopus): n=2053
- Industry: n=20

Table 25 Appendix: participant demographics (unweighted)

Demographic group	n	%
Gender		
Man or Male	3,380	51.1%
Woman or Female	3,181	48.1%
Non-binary/I use a different term	52	0.8%
Age		
Under 25	747	11.3%
25–34 years	1,322	20.0%
35–44 years	1,743	26.3%
45–54 years	1,431	21.6%
55–64 years	1,021	15.4%
65+	353	5.3%
Region		
Capital City	4,633	70.0%
Rest of State	1,841	27.8%

Demographic group	n	%
State or territory		
NSW	1,970	29.8%
VIC	1,848	27.9%
QLD	1,308	19.8%
SA	473	7.1%
WA	652	9.9%
TAS	164	2.5%
NT	51	0.8%
ACT	151	2.3%
Use a language other than English at home		
Yes	1,064	16.1%
No	5,553	83.9%
Health		
Excellent	1,053	15.9%
Very good	2,579	39.0%
Good	2,188	33.1%
Fair	683	10.3%
Poor	112	1.7%
SEIFA		
Quintile 1 - Most disadvantage	877	13.3%
Quintile 2	1,709	25.8%
Quintile 3	1,338	20.2%
Quintile 4	1,282	19.4%
Quintile 5 - Least disadvantage	1,225	18.5%

Demographic group	n	%
Education		
Year 12 or below	1,125	17.0%
Advanced Diploma, Diploma or Certificate	1,956	29.6%
Bachelor Degree Level	1,776	26.8%
Postgraduate	1,712	25.9%
Unable to establish	48	0.7%
Income		
$0–$20,799 per year	678	10.2%
$20,800–$41,599 per year	756	11.4%
$41,600–$77,999 per year	1,656	25.0%
$78,000–$155,999 per year	2,535	38.3%
$156,000 or more per year	805	12.2%

Table 26 Appendix: participant demographics (weighted)

Demographic group	n	%
Gender		
Man or Male	3,380	51.6%
Woman or Female	3,181	47.%
Non-binary/I use a different term	52	0.9%
Age		
Under 25	747	13.8%
25–34 years	1,322	22.5%
35–44 years	1,743	22.7%
45–54 years	1,431	20.9%
55–64 years	1,021	15.3%
65+	353	4.8%
Region		
Capital City	4,633	66.7%
Rest of state or territory	1,841	30.4%

Demographic group	n	%
State or territory		
NSW	1,970	29.7%
VIC	1,848	26.7%
QLD	1,308	20.2%
SA	473	7.2%
WA	652	11.1%
TAS	164	2.2%
NT	51	0.9%
ACT	151	2.1%
Use a language other than English at home		
Yes	1,064	19.7%
No	5,553	80.3%
Health		
Excellent	1,053	14.4%
Very good	2,579	37.8%
Good	2,188	34.8%
Fair	683	11.1%
Poor	112	1.8%
SEIFA		
Quintile 1 - Most disadvantage	877	14.2%
Quintile 2	1,709	25.4%
Quintile 3	1,338	20.2%
Quintile 4	1,282	19.2%
Quintile 5 - Least disadvantage	1,225	17.3%
Education		
Year 12 or below	1,125	26.0%
Advanced Diploma, Diploma or Certificate	1,956	35.8%
Bachelor Degree Level	1,776	23.6%
Postgraduate	1,712	13.8%
Unable to establish	48	0.8%

Demographic group	n	%
Income		
$0–$20,799 per year	678	10.5%
$20,800–$41,599 per year	756	12.9%
$41,600–$77,999 per year	1,656	27.6%
$78,000–$155,999 per year	2,535	36.1%
$156,000 or more per year	805	9.8%

Table 27 Appendix: worker characteristics (unweighted)

Worker characteristics	n	%
Industry		
Health Care and Social Assistance	1,030	15.6%
Education and Training	664	10.0%
Professional, Scientific and Technical Services	573	8.7%
Construction	517	7.8%
Retail Trade	447	6.8%
Public Administration and Safety	417	6.3%
Manufacturing	416	6.3%
Accommodation and Food Services	302	4.6%
Transport, Postal and Warehousing	227	4.2%
Administrative and Support Services	214	3.2%
Financial and Insurance Services	208	3.1%
Wholesale Trade	173	2.6%
Agriculture, Forestry and Fishing	150	2.3%
Mining	126	1.9%
Arts and Recreation Services	114	1.7%
Information Media and Telecommunications	104	1.6%
Electricity, Gas, Water and Waste Services	82	1.2%
Rental, Hiring and Real Estate Services	68	1.0%
Other Services	218	3.3%

Worker characteristics	n	%
Occupation		
Professionals	1,901	28.7%
Managers	1,056	16.0%
Technicians and Trades Workers	771	11.7%
Community and Personal Service Workers	715	10.8%
Clerical and Administrative Workers	684	10.3%
Labourers	536	8.1%
Sales Workers	469	7.1%
Machinery Operators and Drivers	403	6.1%
Tenure		
Less than 12 months	1,006	15.3%
1–3 years	1,819	27.6%
4–10 years	2,063	31.3%
More than 10 years	1,693	25.7%
Payment type		
Wage / Salary	5,635	99.1%
Other / Uncertain	48	0.8%
Workplace location		
Office	1,975	29.8%
Own home	785	11.9%
Shop or retail outlet	509	7.7%
School, TAFE or university	442	6.7%
Hospital or medical centre	408	6.2%
Construction site	392	5.9%
Outdoors (such as a farm or park)	307	4.6%
Another home (such as an employer's or client's home)	298	4.5%
Warehouse	271	4.1%
Restaurant, kitchen or cafe	254	3.8%
Factory	210	3.2%

Worker characteristics	n	%
Travelling	189	2.9%
Workshop or service centre	164	2.5%
Laboratory	63	1.0%
Other	323	4.9%

Table 28 Appendix: worker characteristics (weighted)

Worker characteristics	n	%
Industry		
Health Care and Social Assistance	1,030	14.7%
Education and Training	664	8.2%
Professional, Scientific and Technical Services	573	7.9%
Construction	517	8.4%
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Worker characteristics	n	%
Travelling	189	2.8%
Workshop or service centre	164	2.8%
Laboratory	63	0.9%
Other	323	5.2%

Weighting approach

Survey data were weighted for the Australian working population. Weighting adjusts for differences between the achieved sample and known population benchmarks, helping to account for factors such as differential response rates across demographic and employment groups. Consistent with standard practice at the Social Research Centre, weights were applied using benchmark information on key characteristics of the Australian workforce, including age, gender, location and other relevant variables. This process supports the production of robust population-level estimates of work-related hazard exposure and improves confidence that the results reflect the broader Australian workforce rather than the characteristics of survey respondents alone.

OccIDEAS methodology

Overview of OccIDEAS

Occupational Integrated Database Exposure Assessment System (OccIDEAS) is a web-based exposure assessment platform developed by researchers and used internationally in occupational epidemiology and worker exposure surveillance. OccIDEAS is designed to assess workers' exposure to specific chemical, physical and other occupational agents on an individual task basis, rather than relying solely on job title or industry classification.

OccIDEAS has been used previously in Australia in the Australian Work Exposures Study and specific exposure studies, and in other national studies including the New Zealand Carcinogens Survey[6] and the European Union Workers' Exposure Survey[7], to provide consistent, task-based estimates of occupational exposure.

Job-specific module approach

Respondents answer detailed questions about their work (different jobs have different sets of questions) and OccIDEAS uses evidence-based algorithms to provide a personalized assessment of exposure to the agents relevant to that job.

OccIDEAS job modules are allocated based on the type of occupation a worker does. Job modules contain a selection of task modules that are related to what the worker does in a particular job or occupation (e.g. teacher, miner, construction work).

Task modules are sets of questions that relate to a specific work-related activity or process (e.g. cutting wood or driving vehicles). These tasks might be carried out or applied in different jobs (for example, cutting wood could be done by farmers, construction workers or forestry workers), therefore the same set of questions in a task module can be asked in several different job modules.

[6] WorkSafe New Zealand (2023), *New Zealand Carcinogens Survey 2021*, https://www.worksafe.govt.nz/research/new-zealand-carcinogens-survey-2021/
[7] European Agency for Safety and Health at Work (2023), *Workers' exposure survey on cancer risk factors in Europe*, https://osha.europa.eu/en/facts-and-figures/workers-exposure-survey-cancer-risk-factors-europe

Exposure assessment process

Exposure assessment in OccIDEAS combines self-reported task information with pre-defined assessment rules developed by occupational hygienists and epidemiologists. For each hazard studied, OccIDEAS applies decision algorithms that translate task responses into an assessment of:

- Probability of exposure (e.g. exposed / not exposed), and
- Level of exposure, where relevant.

This rule-based approach allows exposure to be assessed consistently across respondents, while still reflecting the variability in tasks and conditions within the same occupation. Because the exposure assessment is based on task-level information rather than respondent judgement alone, it reduces potential misclassification compared with simple self-reported exposure questions.

The academic literature was reviewed to determine which jobs and tasks were associated with each agent of interest, and what level of exposure would occur with those jobs and tasks. These associations are operationalised as rules. Exposure rules in OccIDEAS can be very complex, since the probability of exposure to a risk factor for a given worker is the result of combining information on all tasks performed at work by the respondent, the availability of protective measures (e.g. closed systems, ventilation), or the use of personal protective equipment (e.g. respiratory or eye protection), depending on the task being considered. Other contextual information collected in the interview, such as distance from the source, or indoor versus outdoor location, is sometimes also used in the determination of probable exposure.

Rules provide a semi-quantitative estimate of exposure based around the Workplace Exposure Standards (WESs)[8] or other measures relative to the exposure (for example, the annual limits for ionising radiation, or the guidance material on managing the risks of working in heat). The definitions of the exposure status are:

- Probable exposure at a high level – exposure at or around the WES.
- Probable exposure at a medium level – exposure between about 10% and 80% of the WES.
- Probable exposure at a low level – exposure that is higher than the general community, but less than about 10% of the WES.
- Probable exposure at an unknown level – exposure is likely, but the level is unknown.
- Possible exposure at an unknown level – it is possible that the person would be exposed but if they are, the level is unknown. For the purposes of this study, these responses have been treated in the same way as ‘no exposure’.

Agents

In OccIDEAS, an ‘agent’ refers to a chemical, physical or other occupational exposure that may occur at work (e.g. silica, diesel exhaust, solar UV radiation). Agents may be present in chemical, physical or combined forms. The system includes coverage of occupational agents including various carcinogens, asthmagens and other priority workplace hazards relevant to Australian working conditions.

Integration with the survey platform

For this study, OccIDEAS was integrated with the SRC Forsta survey platform via a secure API. This enabled respondents to move seamlessly between the main survey and their assigned job module(s), and ensured that exposure assessment data were automatically captured and linked to survey responses. The integration also allowed for testing, quality assurance and validation of job module routing prior to fieldwork.

[8] Safe Work Australia, Workplace exposure standards for airborne contaminants, https://www.safeworkaustralia.gov.au/doc/workplace-exposure-standards-airborne-contaminants-2025

Overall, the automated allocation of job modules performed very well and was appropriate for the vast majority of respondents. However, as anticipated, there were a small number of job module misallocations. This means that, for some sampled workers, they were not asked the most relevant questions about the tasks they undertake in their job. This should be considered when interpreting the findings of the survey at very detailed levels of granularity.

Quality assurance and consistency

The OccIDEAS methodology incorporates several quality assurance features, including:

- Standardised job modules and assessment rules applied consistently across respondents;
- Expert-derived algorithms that are reviewed and updated as evidence evolves; and
- Centralised processing of exposure assessments, rather than relying on individual respondent interpretation.

Psychosocial hazard information was collected as a specialised module developed by SWA, capturing data on psychological and psychosocial hazards consistent with the model code, using questions framed around frequency or intensity of experiences at work.

Together, these features support robust, reproducible estimates of occupational exposure across industries, occupations and demographic groups.

Ethics and quality assurance

The AWES was conducted in accordance with established ethical research principles and quality assurance standards. Participation was voluntary, with informed consent obtained from all participants prior to taking part. Respondents were provided with clear information about the purpose of the research, how their data would be used, and their right to withdraw at any time. This project received ethics approval from Bellberry Human Research Ethics Committee (HREC) (Approval No. 2025-05-861-A-1).

All data were collected and managed in line with Australian privacy legislation and the Social Research Centre's secure data handling protocols. Survey and qualitative data were stored securely, access was restricted to authorised research staff, and all reporting is based on de-identified and aggregated data to protect participant confidentiality.

Quality assurance processes were applied throughout the project lifecycle, including questionnaire development and cognitive testing, monitored fieldwork procedures across all data collection modes, systematic data validation and cleaning, and structured internal review of analytical outputs. The research was conducted in accordance with the ISO 20252:2019 Market, Opinion and Social Research Standard, which sets requirements for project management, sampling, fieldwork, data processing and reporting, and supports consistency, transparency and reproducibility of findings.

The project was also undertaken in compliance with the Australian Privacy Principles (APPs) and the Privacy (Market and Social Research) Code 2021, ensuring that the collection, storage, use and disclosure of personal information met Australian legislative and ethical requirements. Data security and confidentiality were managed under the Social Research Centre's accredited information security framework, including ISO 27001-aligned controls, with restricted access to identifiable data, secure storage, and de-identification of datasets prior to analysis.

These quality and governance arrangements provide assurance that the research was conducted with a level of rigour and accountability appropriate for national-level evidence intended to inform WHS policy and practice, while protecting participant privacy and data integrity throughout the study.

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