Centre for Work Health and Safety

Australian WHS Survey

Autumn 2023 edition

NSW GOVERNMENT

This report has been produced through research by the
Centre for Work Health and Safety.

Executive summary

Background

The Australian WHS Survey (the Survey) is an initiative from the Centre for Work Health and Safety (the Centre). It is the first of its kind in Australia and provides a platform for workers from across the nation to share their first-hand experiences of Work Health and Safety (WHS).

The Survey captures three aspects of what WHS looks like in Australia.

- **The WHS profile of Australian workers**, e.g., their exposure to physical and psychosocial hazards, including harassment, their awareness of WHS rights and responsibilities, and their feelings of empowerment to participate in, and influence, health and safety at work.

- **The respondents' perceptions** of their workplace's existing WHS policies and systems, demonstrated WHS commitment and practices, and views about the barriers and potential enablers to improve WHS in their workplaces.

- **The respondents' observations** of new or emerging WHS issues and suggestions for potential harm prevention measures.

This information is critical in assisting Australian businesses, WHS regulators and affiliated bodies to prevent workers from being harmed in the workplace. The Survey will be open for response every six months. While this report provides insights exclusively based on data collected through this 1st edition of the Survey, future iterations will allow for the analysis of trends over time.

Method

The Survey was conducted in January 2023. It was open to all people over 18 years of age, currently living in Australia, and who have worked in Australia in the previous six months. In total, the survey received 1,017 valid responses.

The Survey (Appendix A), designed by the Centre, included the full suite of questions taken from two published instruments: the Psychosocial Job Quality Index (Butterworth et al., 2011), and the Occupational Health and Safety vulnerability measure (Lay et al., 2016).

Findings

Monitoring Australia's WHS pulse

The Survey considers a series of indicators measuring WHS at various levels:

- the level of awareness of workers to their and their employer's WHS rights and responsibilities,

- their empowerment to participate in WHS discussions,

- the level of commitment to WHS, and

- the level of WHS systems in place in their workplaces.

The Survey will occur every six months with these measures enabling monitoring and eventually forecasting of the WHS pulse in Australian workplaces in future.

In this 1st Edition, respondents were found somewhat 'aware' and relatively less 'empowered', with three out of four respondents showing adequate levels of awareness, whereas only one out of two showed adequate levels of empowerment. Mixed views were shared in regard to workplace practices and commitment, with one out of two respondents reporting adequate policies and procedures in place in their workplace or experiencing commitment to healthy work and support to a strong safety culture from their leaders.

Key Barriers and enablers

The Survey indicates that safety practices in Australian workplaces are constrained primarily by limited time and resources. Improvements could be achieved if safety requirements were easier to understand or if the financial or reputational benefits were more demonstrable for organisations. Organisations would be likely to be motivated to improve WHS if its value proposition was clearer for workers and/or their leaders.

Increasing psychosocial harm

Results indicate a high and increasing level of psychosocial harm in Australian workplaces, with workers experiencing:

- higher level of poor job quality - 16.3% of respondents were working in roles considered to be of poor psychosocial quality,

- higher level of burnout - almost two-thirds of respondents reported feeling drained by their work, and

- more adverse work environments with higher levels of harassment and bullying - more than two-thirds of respondents indicated they had experienced bullying in the workplace in the past year.

The increasing normalisation of chronic understaffing across organisations, along with the limited acknowledgement and limited action taken against bullying and/or harassment in the workplace, were cited as the main drivers for this increase in psychosocial harm. The recent explosion of home and flexible working arrangements was also discussed as an important contributing factor, especially due to the increase of workers operating in isolated environments.

On the positive, respondents indicated that awareness of and practices to reduce psychosocial issues were increasing in their workplaces, particularly since the introduction of the new WHS model regulations and code of practice on addressing psychosocial hazards.

Call for a re-prioritisation of WHS in Healthcare

The Survey responses from the Healthcare sector were most alarming. Results show that Healthcare workers felt more exposed to hazards, including harassment, sexual harassment and bullying, than workers from other industries. Almost one out of two Healthcare workers experienced a form of harassment or bullying on a monthly basis, and there were indications that sexual harassment was also more predominant in this industry.

Healthcare workers felt less aware of their and their employer's WHS rights and responsibilities and were also less empowered to participate in WHS discussions than their colleagues in other industries. Healthcare workplaces were not perceived as great places to work from a WHS perspective, being viewed as less prepared to manage WHS and less committed to it than workplaces in other sectors. The lack of time and resources, but also the de-prioritisation of WHS, were the main barriers to good WHS identified by healthcare respondents.

Workers and management share different WHS experiences

The views of the workers with respect to WHS practices in the workplace were generally different to the views of managers and executives. In comparison to respondents in management roles, respondents in worker roles generally felt less aware and less empowered and also perceived their workplaces as being less prepared to manage WHS and less committed to it.

Interestingly, workers' most potential driver for better prioritisation of WHS in their workplace was if it was more valued by workers. Executives were more of the view that WHS could be re-prioritised if it became more financially rewarding or more valued by customers and investors.

WHS considerations in small businesses vs. in large organisations

The Survey indicates more frequent instances of harassment and bullying in small businesses, in comparison to large organisations, with seven out of ten workers experiencing a form of

harassment in the last twelve months. In contrast, workers from large organisations were found to experience a higher level of burnout associated with higher job demand.

While workers from small businesses also feel less aware of WHS rights and responsibilities and less empowered to participate in WHS than workers from large organisations, they report a higher level of commitment to WHS from their workplace.

The main barriers to good WHS practice identified in the Survey vary depending on the size of the organisation. On the one hand, workers from large organisations pointed out the lack of time and resources and also the de-prioritisation of WHS in favour of other objectives as the main barriers to good WHS. On the other hand, workers from small businesses identified the limited understanding of the WHS obligations and the limited knowledge of WHS risks and hazards as key issues and flagged that WHS could be best reprioritised if it was more financially rewarding or more valued by customers and investors.

At risk workers

The Survey shows that female-identified and diverse-identified workers (CALD, First Nations Australians, migrants, LGBTQIA+ or disability) felt more vulnerable in the workplace, notably reporting more frequent experiences of harassment and sexual harassment. In addition, diverse-identified workers (CALD, First Nations Australians, migrants, LGBTQIA+ or disability), together with young workers, felt less aware of their and their employer's WHS rights and responsibilities, as well as less empowered to participate in WHS.

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Background

Overview of the Australian WHS Survey

The Australian WHS Survey (the Survey) is administered by the NSW Government's Centre for Work Health and Safety (the Centre), a collaborative research body that drives a smarter approach to the way we think and act about work health and safety (WHS).

The Survey is the first of its kind in Australia; it captures workers' experiences, perspectives and views about WHS and their perception of WHS practices existing in their workplace. It informs about:

- the current WHS profile of Australian workers, that is, their exposure to physical and psychosocial hazards, WHS awareness and empowerment;

- the current WHS profile of Australian workplaces, that is, existing WHS systems and practices, WHS commitment, barriers, and enablers;

- new and emerging WHS issues and potential preventative measures that might be considered in the workplace;

- at-risk sectors, including characteristics about workers and workplaces who may be a greater risk of experiencing WHS issues; and

- leading indicators of strong WHS practices.

The Survey provides a relevant, current and robust assessment of the WHS landscape in Australia and will be used to assist the Centre, Australian businesses, WHS regulators, and other affiliated bodies, in their respective journey to prevent workers from being harmed.

This 1st edition was conducted in January 2023 and was open to people who are over 18 years of age, currently living in Australia, and have worked in Australia in the last six months. The Survey will be repeated every six months thereafter.

Method

Survey Design

The Survey consists of 35 questions (Appendix A), including:

- Ten multiple-choice questions

- Seven multiple-choice 'select all that apply' questions

- Nine multiple-choice matrices

- Nine open-response questions

Two published instruments were used in their integrity, the Psychosocial Job Quality Index (PJQI) (Butterworth et al., 2011), and the Occupational Health and Safety Vulnerability Measure (OHSVM) (Lay et al., 2016). The reasons why and the way these instruments were used in the Survey are discussed below.

All other questions were designed by the Centre.

The questions were distributed across four areas of enquiry:

     i)   respondents' demographic profile;

     ii)   worker WHS profile;

     iii)   workplace WHS profile; and

     iv)   the future of work.

Respondents' demographic profile

The Survey collected data about the respondent's circumstances in the workplace and the workplace's characteristics. This includes the respondent's role, employment type, the industry they work in, the size and type of organisation they work for, and the location of their workplace.

The Survey also captured voluntary data relating to the respondent's demographic profile, including the age, gender, level of education, and diversity of the sample collected.

Workers' WHS profile

The Survey included questions to capture the respondent's WHS profile, specifically:

- The respondent's perceived exposure to physical and psychosocial hazards, including exposure to any types of harassment, burnout, and experienced levels of job demand and quality. The respondent's Psychosocial Job Quality Index (PJQI) was calculated

(Butterworth et al., 2011) and enabled identifying those respondents the most at risk of psychosocial harm as a function of their perceived job quality.

- The respondent's perceived awareness of hazards and of their rights and responsibilities, and those of their employers.

- The respondents' perceived empowerment to participate in health and safety in the workplace.

- The respondent's vulnerability to health and safety risks in the workplace, as defined by the Occupational Health and Safety Vulnerability Measure (OHSVM) (Lay et al., 2016).

Workplaces' WHS profile

The Survey also included questions to capture the respondent's perception of their workplaces' existing WHS systems and practices, specifically:

- The respondent's understanding of the workplace's existing systems with regard to WHS governance, including the kinds of policies and procedures existing in the workplace to ensure health and safety.

- The respondent's view on the commitment and practices to WHS in their workplace.

- The respondent's perspective about the barriers and enablers to improving WHS in their workplace.

Future of work

The final questions of the Survey intended to capture the respondent's experience and observations of (1) new or emerging WHS issues in their workplace and (2) emerging WHS preventative measures and solutions.

Survey recruitment and inclusion criteria

The Survey was distributed online via the Qualtrics XM platform and was open to all people who met the following inclusion criteria:

- over 18 years of age,
- currently living in Australia, and
- worked in Australia in the last six months.

Given the broad nature of the inclusion criteria, the recruitment of participants was undertaken using a multi-channel approach. This strategy included the use of organic and paid advertising on social media accounts owned by the Centre, along with via direct email to mailing lists established by the Centre. Additionally, the Survey was advertised on NSW Government webpages, within NSW Government newsletters and on NSW Government-owned

social media accounts. The distribution strategy also utilised intermediary organisations, who were encouraged to distribute the Survey amongst their own networks (see **Appendix B** for a summary of all distribution channels utilised and their reach).

Upon completion of the Survey, respondents were offered a lottery-style incentive that gave them a chance to win a $500 gift card. The Survey opened on Monday, 9 January 2023 and closed on Tuesday, 31 January 2023.

Ethical and privacy considerations

Participation in the Survey was on a voluntary basis, and respondents' consent was implied by their decision to complete it. Prior to undertaking the Survey, participants were provided information about the Centre, the inclusion criteria for participation, the risks and benefits of completing the Survey, and how the data collected would be analysed, reported on, stored and used. The Survey included information about psychological support services available, including Lifeline and Beyond Blue, in the event that participation caused distress or discomfort. Information gathered in the Survey was de-identified at the point of analysis and managed in accordance with the Privacy and Personal Information Protection Act 1998 (PPIP Act) and the Health Records and Information Privacy Act 2002 (HRIP Act).

Sample size

The Survey received a total of 1,927 responses. Following the closure of the Survey, raw data were exported from the Qualtrics XM platform and cleaned to exclude the following:

- duplicate responses,
- invalid responses, including those that did not meet the inclusion criteria, along with 'bot' or spam responses, and
- incomplete responses[1].

A total of 910 responses were excluded due to this cleaning process, resulting in a total valid sample size of n=1,017.

Analysis

Quantitative Analysis

Data were analysed and converted into summary descriptive statistics using Microsoft Excel and RStudio (R Core Team 2022).

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[1] Note: incomplete responses are defined as responses that did not provide a response to any question up to Question 16: In the past six months, have you seen anything new that can improve health and safety in your workplace? Please select all that apply. Question 16 was selected as the benchmark for what constituted a 'complete' survey as it was the final mandatory question of the Survey.

Several indices were calculated using the respondent's responses to specific questions in the Survey. Chi-square analysis and one-way analysis of variance (ANOVA) were used to determine statistical significance where appropriate.

The Worker's Vulnerability Flag

The Worker's Vulnerability Flag was computed using the method developed by Lay et al. (2016), as a function of the respondent's responses to the statements of the OHSVM instrument, which were integrated into the Survey (see Appendix C for details). The Worker's Vulnerability Flag determines whether one respondent is or is not vulnerable to health and safety risks in the workplace.

The Worker's Job Quality Psychosocial Risk

The Worker's Job Quality Psychosocial Risk was computed using the method developed by Butterworth et al. (2011), as a function of the respondent's responses to the statements of the PJQI instrument, which were integrated into the Survey (see Appendix D for details). This method calculates a score ranging from 0 to 4, reflecting the respondent's level of risk of psychosocial harm as a function of their perceived job quality. Respondents with a score of 3 and 4 were determined to be 'at risk'.

Indices for Worker's Awareness, Worker's Empowerment, Workplace's Systems and Workplace's Commitment

Indices for Worker's Awareness, Worker's Empowerment, Workplace's Systems and Workplace's Commitment were estimated based on the respondent's responses to a specific series of statements in the Survey. Each statement required a response from "strongly disagree" to "strongly agree", which was transformed to give a score ranging from 0 (strongly disagree) to 100 (strongly agree). All four indices were calculated as the average of the scores of all statements within a series, e.g. the Worker's Awareness Index was calculated as the average of the scores of all statements associated with worker's awareness of rights and responsibilities.

An index of 0 indicates the total lack of Worker's Awareness, Worker's Empowerment, Workplace's Systems and/or Workplace's Commitment (the respondent systematically strongly disagreed with all statements in the associated series). In contrast, an index of 100 indicates a complete Worker's Awareness, Worker's Empowerment, Workplace's Systems and/or Workplace's Commitment (the respondent systematically strongly agreed with all statements in the associated series).

Worker's Burnout Index

The same analytic method was used to calculate a Worker's Burnout Index for each respondent, considering their responses to the following three statements (Section 9 of the Survey, see Appendix A):

- (Burnout) I feel drained by my work
- (Burnout) I worry about work when I am not working
- (Burnout) I find it hard to disconnect from work

Qualitative Analysis

The Survey included several open-ended questions, which were analysed by using an inductive thematic analysis approach, completed in Excel and NVivo. Responses were first analysed to identify key and recurring themes or concepts. These themes or concepts were then used to develop a thematic framework. This process was inductive, meaning the themes were iteratively constructed based on the responses themselves.

Limitations

The Survey's sample is not considered to be representative of Australia's labour force, even though it contains comparable proportions of respondents to labour force data across gender and age groups.

The distribution of the sample heavily favours workers in NSW compared to other jurisdictions. Further, the sample appears to include fewer workers with a school-level education (in comparison to the national labour force statistics, ABS 2022c). Finally, despite the sample being broadly reflective of national industry occupation data, Professional, Scientific, and Technical Services; Retail Trade; Transport, Postal and Warehousing; Wholesale Trade; Arts and Recreational Services are considerably underrepresented (in comparison to the national labour force figures).

Results

Respondents' demographic profile

Table 1 provides the frequencies and proportions of all demographic groups.

More male-identified individuals than female-identified individuals responded to the Survey. Approximately 2% of respondents identified as being non-binary, which is a higher representation in comparison to 2021 census data (ABS, 2022b; Table 1).

Most respondents were aged between 25-34 years old (28%) and between 35-44 years old (27%). Respondents aged 65 and over were the least-represented age group (2.4%). Compared to ABS labour force data (ABS, 2022a), respondents aged 25 to 54 were overrepresented in the sample.

Respondents with a bachelor's degree were the most represented (24%), followed by respondents with a post-graduate degree (18%) and respondents with an advanced diploma/diploma (18%). The sample contained few respondents with a school-level education, and this group was under-represented compared to ABS labour force data (ABS, 2022c).

Most respondents worked in NSW (60%). Compared to ABS labour force data, respondents working in Victoria, Queensland, and Western Australia were the most underrepresented (ABS, 2022d).

Almost half (46%) of respondents identified as belonging to a diverse group. Most diverse-identified respondents identified as being part of the LGBTQIA+ community (14.5%), followed by the culturally and linguistically diverse community (14.1%) and First Nations Australians (13.4%). Most respondents indicated they spoke English as a child (90%), and few indicated they spoke a language other than English as a child (8%).

Table 1. Characteristics of respondents according to gender, age, education, and location of employment compared to available national benchmarks.

	Survey Data		National Benchmark
Worker Characteristics	Frequency	%	%
Gender			
Male	495	49.2%	52.4%
Female	472	46.9%	47.6%
Non-binary	22	2.2%	0.2%
I use another term	2	0.2%	
Prefer not to say	15	1.5%	
Age			
18 to 24	63	6.3%	
25 to 34	285	28.3%	23.9%
35 to 44	272	27.0%	23.4%
45 to 54	216	21.5%	20.8%
55 to 64	141	14.0%	15.4%
65 or over	24	2.4%	5.2%
Prefer not to say	5	0.5%	
Highest level of education			
Postgraduate Degree	181	18.0%	8.3%
Bachelor's degree	240	23.9%	20.0%
Graduate Diploma/Graduate Certificate	92	9.1%	3.8%
Advanced Diploma/Diploma	181	18.0%	10.3%
Trade Certificate/ Certificate III/IV	161	16.0%	16.8%
Year 12	64	6.4%	17.5%
Year 11 or below	75	7.5%	21.4%
Prefer not to say	12	1.2%	
State of employment			
New South Wales	618	60.8%	31.4%
Australian Capital Territory	166	16.3%	1.9%
Victoria	132	13.0%	25.6%
Northern Territory	46	4.5%	1.0%
Queensland	83	8.2%	20.2%
South Australia	75	7.4%	6.7%
Tasmania	20	2.0%	2.1%
Western Australia	54	5.3%	11.0%
Outside Australia	8	0.8%	
Diversity			
LGBTQIA+	146	14.5%	
Culturally and/or linguistically diverse	142	14.1%	
First Nations Australians	135	13.4%	
Migrant or temporary resident	79	7.9%	
People living with a disability	96	9.6%	
None of the above	463	46.1%	
Prefer not to say	74	7.4%	
Language spoken as a child			
English	908	90.3%	
Other (please specify)	77	7.7%	
Prefer not to say	20	2.0%	

Industry of employment

Just over half of the respondents were employed in one of the five following sectors: Healthcare and Social Assistance (15%), Construction (11%), Education and Training (10%), Public Administration and Safety (9%) or Manufacturing (8%) (Fig.1). Compared to ABS labour force data, industries with considerable under-representation in the sample include Retail Trade, Professional, Scientific and Technical Services, Accommodation and Food Services, Transport and Postal Services, Wholesale Trade and Arts and Recreation Services (ABS, 2022e).
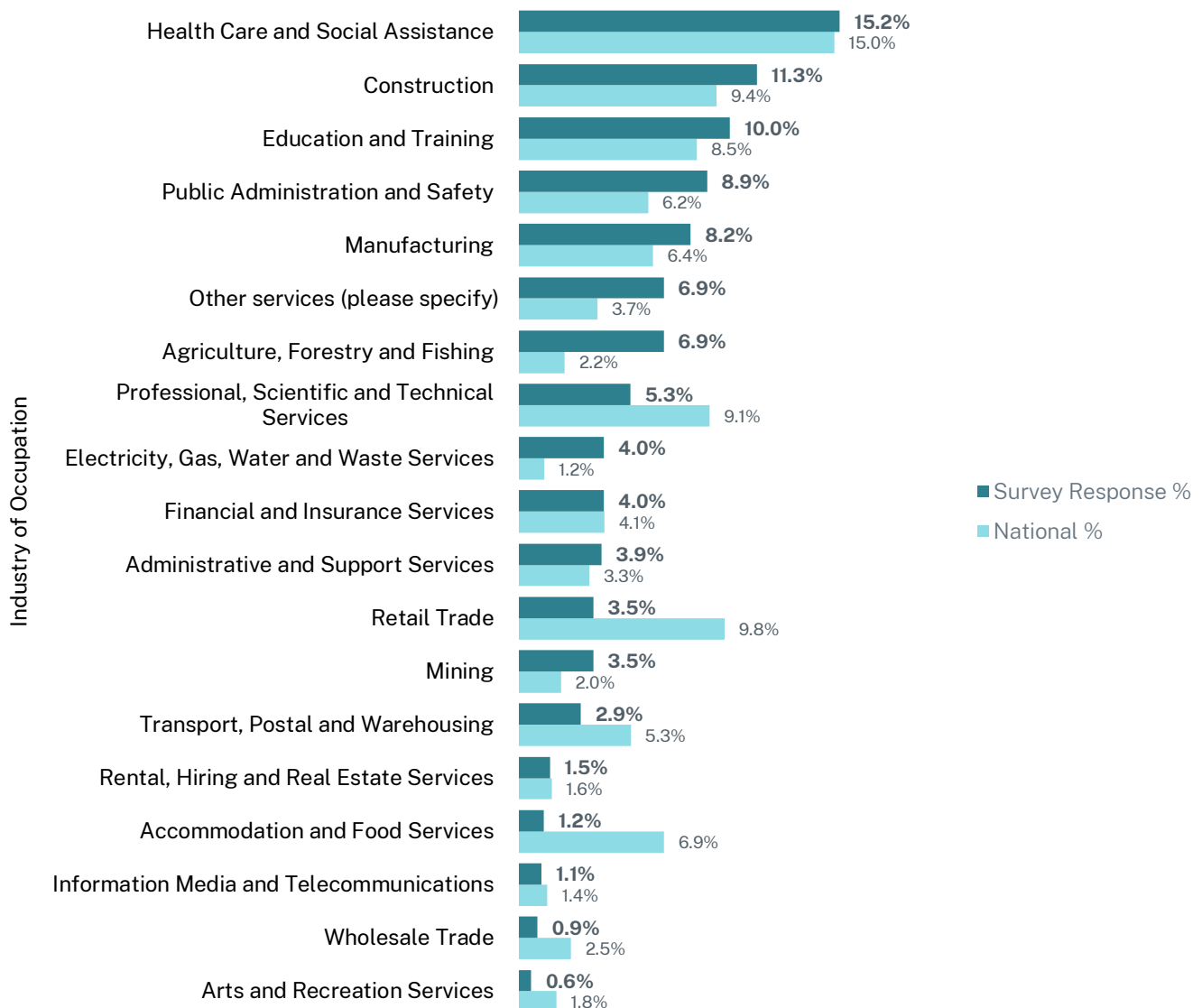
Figure 1. Respondents' industry of occupation (dark blue) compared to ABS national labour force data (light blue).

Role and Employment Status

- **Most respondents were workers or managers/supervisors employed on a permanent or ongoing basis**

Almost six out of ten respondents identified as being workers (58%), and almost a third identified as being a supervisor or manager (28%; Fig.2). One-tenth of respondents identified as being health and safety representatives (10%), and a slightly lesser proportion as being executives/ board members (8%).
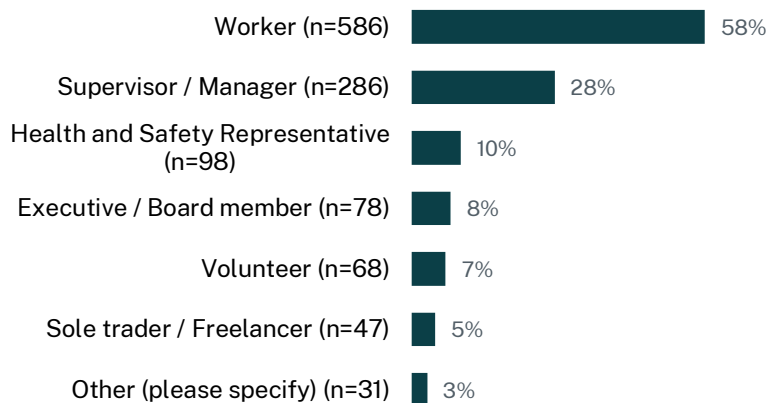
Figure 2. Respondents' role in the workplace. Answering the question: Which of the following best describes your role in the workplace? Please select all that apply

Few respondents selected the 'other' response choice, indicating they held roles in fields such as WHS (n=20), healthcare (n=3), or RTW (n=1). Others indicated they were unable to work at the time of completing the survey (n=3), were business owners (n=2), were on student placement (n=1), or worked as a carer (n=1).

Most respondents were employed on a permanent or ongoing basis (64%, Fig.3). A tenth were working on a fixed-term (10%) and a tenth on a casual basis (11%). A small minority were working as labour-hire (5%), were self-employed (5%) or working as a contractor (3%).

Permanent or ongoing (n=655)	64%
Fixed-term (n=102)	10%
Casual (n=107)	11%
Labour hire (n=55)	5%
Self-employed (n=47)	5%
Contractor (n=32)	3%
Other (please specify) (n=15)	1%
Gig worker (n=4)	0%
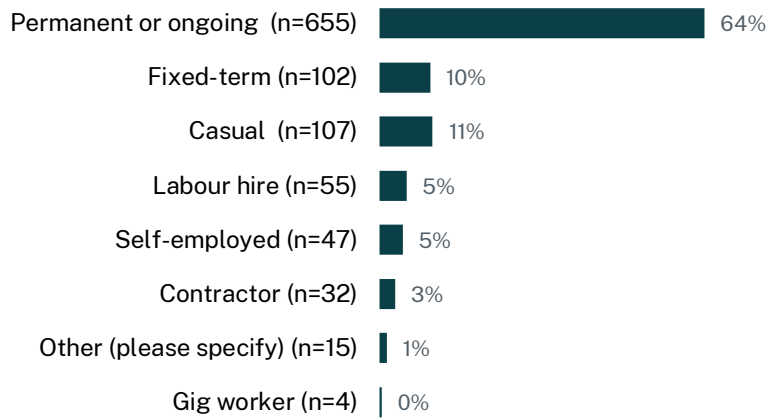
Figure 3. Respondent's employment type. Answering the question: Which of these categories best describes your current employment?

Respondents who selected 'other' (n=15) indicated that they were either not employed at the time (n=8) or were engaged in some form of ongoing employment (n=2) or did not clearly state the type of employment they were engaged in (n=5).

Size and type of organisations

- **Respondents mostly worked in large private or public organisations**

Most respondents worked in large (200 or more workers) organisations (41%). Around one-third worked in medium-sized (20-199 workers) enterprises (28%), 21% worked in small enterprises (5-19 workers), and 5% worked at microenterprises (1-4 workers) (Fig.4).

200 or more workers (n=421)	41%
20-199 workers (n=280)	28%
5-19 workers (n=218)	21%
1-4 workers (n=51)	5%
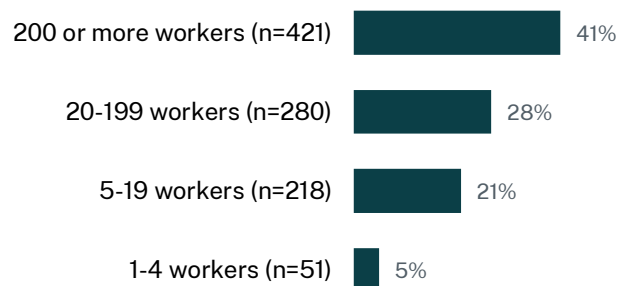
Figure 4. Respondents' business size. Answering the question: How many people work in your organisation?

Just under half of the respondents worked for private companies (41%, Fig.5), 28% worked for government organisations, 13% worked for public companies, and 11% worked for not-for-profit/ non-government organisations.
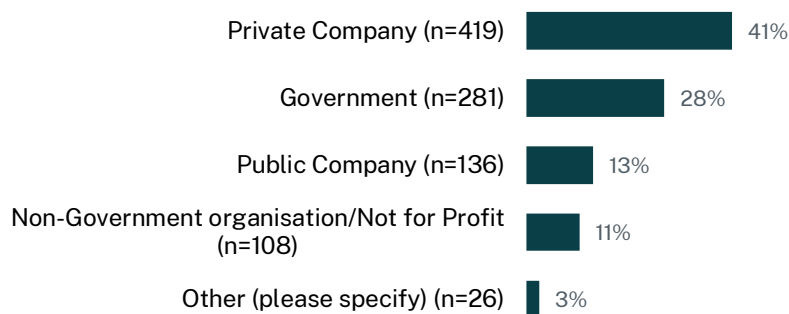
Figure 5. Respondents' type of organisation. Answering the question: Which of the following best describes the organisation you work for?

The types of organisations described by respondents who did not choose one of the listed options (n=26) included educational institutions (n=14), government (n=4), professional associations (n=2), and clubs (n=1).

Working structure

- **Most respondents worked in an office or under flexible working arrangements**

In terms of working structure and ways of working, one-third of the respondents reported working at their organisation's site or office (34%), just under one-third worked flexibly between their home and office (33%), and around one-quarter of respondents (25%) reported working across multiple worksites (Fig.6). Fewer respondents worked exclusively at home (5%) or in their vehicle (2%).
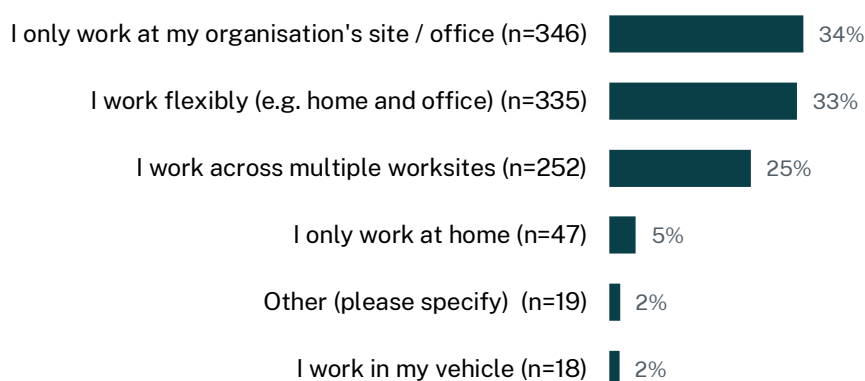
Figure 6. Respondents' work location. Answering the question: What best describes where you work?

Most respondents who selected 'other' (n=19) described some combination of the existing options, including that they travelled between multiple worksites (n=15), worked flexibly (i.e., partly from home) (n=9), and some indicated that they worked in their vehicle sometimes (n=3).

Workers' WHS profile

Exposure to hazards

Figure 7 below gives the breakdown of the respondents' exposure to ten hazards which were integrated into the Survey from the OHSVM instrument (Lay et al., 2016).
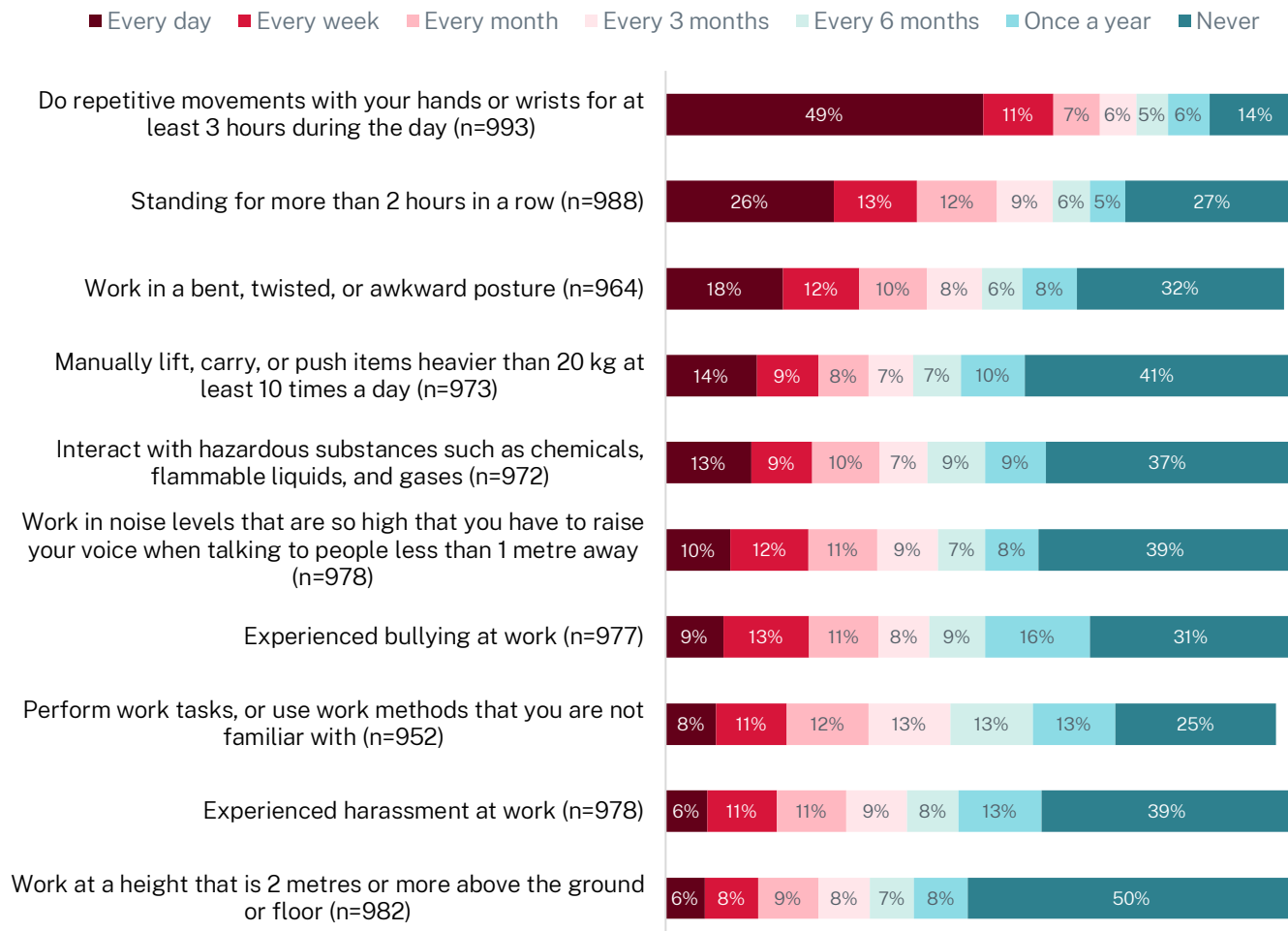
Figure 7. Exposure to hazards: 'For each item below, please rate how often you do the stated task or are exposed to the stated condition.'

We used the OHSVM instrument's method of calculation to identify respondents who could be deemed as being 'exposed to hazards', depending on their responses to the above ten statements (see Lay et al., 2016, for details).

Within this framework, almost six out of ten respondents were identified as being exposed to hazards (58.6%). A chi-square statistical analysis revealed that workers (in comparison to managers and executives), older workers, workers with certificate and diploma level education, workers in non-full-time contracts, workers from the Healthcare sector and

workers from government organisations were more likely to be exposed to hazards (details Appendix E – Table 3).

Physical

- **Most respondents were frequently exposed to hazards associated with musculoskeletal illnesses and injuries**

Large groups of respondents reported that they were exposed to long periods (more than 3 hours) of repetitive movements with their hands or wrist (49% at least once a day, 67% at least once a month, to long periods (more than 2 hours) of standing (26% at least once a day, 51% at least once a month) and to working in a bent, twisted or awkward posture (18% at least once a day, 40% at least once a month) (Fig.7).

Harassment

- **Almost two-thirds of respondents have experienced harassment in the workplace in the past year**

- **The most frequent forms of harassment are verbal and psychological**

Figure 7 shows that almost two-thirds of respondents have experienced harassment at work at least once in the past year (61%). A considerable group of respondents indicated they are experiencing a form of harassment regularly (28% at least every month).

A chi-square analysis revealed that female workers, young workers, workers with school-level education, workers from a diverse community (CALD, First Nations Australians, migrant, LGBTQIA+ or disability), Healthcare workers and workers from small businesses were statistically significantly more likely to report that they experienced a form of harassment in the last twelve months.

Note that close to 70% of workers from small businesses reported that they experienced a form of harassment in the last twelve months. More than four out of ten workers from the Healthcare sector reported that they experienced a form of harassment on a monthly basis (42%).

Figure 8 shows the frequency of the different forms of harassment experienced by those having experienced harassment. The most common form of harassment is verbal (63%), closely followed by psychological (52%). A quarter of those respondents reported having experienced sexual harassment (25%), which corresponds to fourteen% of the total sample.
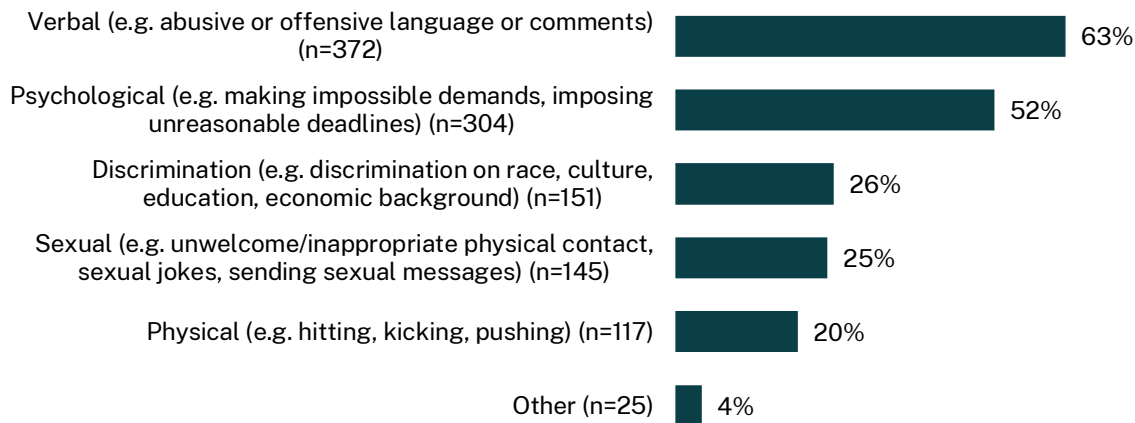
Figure 8. Respondents' experience with different types of harassment. Answering the question: Please provide the type of harassment that you experienced (select all that apply) (n=586)

Some of the respondents who selected 'other' (n=25) flagged discrimination as an additional form of harassment they experienced (n=5; gender-based and age-based) and harassment through social exclusion (n=4).

Among workers who flagged sexual harassment as one of the forms of harassment they experienced, three out of ten experienced sexual harassment without any other forms of harassment (29%). Six out of ten also experienced sexual harassment together with verbal harassment (58%), and three out of ten experienced it with physical harassment (30%).

A chi-square analysis revealed that female workers, middle-aged workers, workers from a diverse community (CALD, First Nations Australians, migrants, LGBTQIA+ or disability), and Healthcare workers were statistically significantly more likely to report that they experienced sexual harassment in the last twelve months. More than one in ten Healthcare workers reported that they experienced a form of harassment on a monthly basis and listed sexual harassment as the form, or one of the forms, of harassment they experienced (14%).

Psychosocial: bullying

- **More than two-thirds of respondents have experienced bullying in the workplace in the past year**

Figure 7 shows that more than two-thirds of respondents have experienced bullying at work at least once in the past year (60%). A considerable group of respondents also indicated they are experiencing bullying at work every day (9%), and more than a third are experiencing it every month (34%).

A chi-square analysis revealed that young workers, workers with school-level education, workers from a diverse community (CALD, First Nations Australians, migrant, LGBTQIA+ or

disability), workers from the Healthcare sector, workers from small businesses and respondents in a worker or executive roles were statistically significantly more likely to report that they experienced bullying in the last twelve months.

Psychosocial: burnout

- **Almost two-thirds of respondents reported feeling drained by their work**

The Survey considered three statements to assess the level of burnout of the respondents. Almost two-thirds agreed (somewhat agreed, agreed, or strongly agreed) that they worried about work when they're not working (64%), another two third found it hard to disconnect from work (63%), and another two-thirds felt drained by their work (62%, Fig.9).

■ Disagree ■ Agree

	Disagree	Agree
I worry about work when I am not working (n=995)	23%	64%
I find it hard to disconnect from work (n=1001)	23%	63%
I feel drained by my work (n=999)	21%	62%
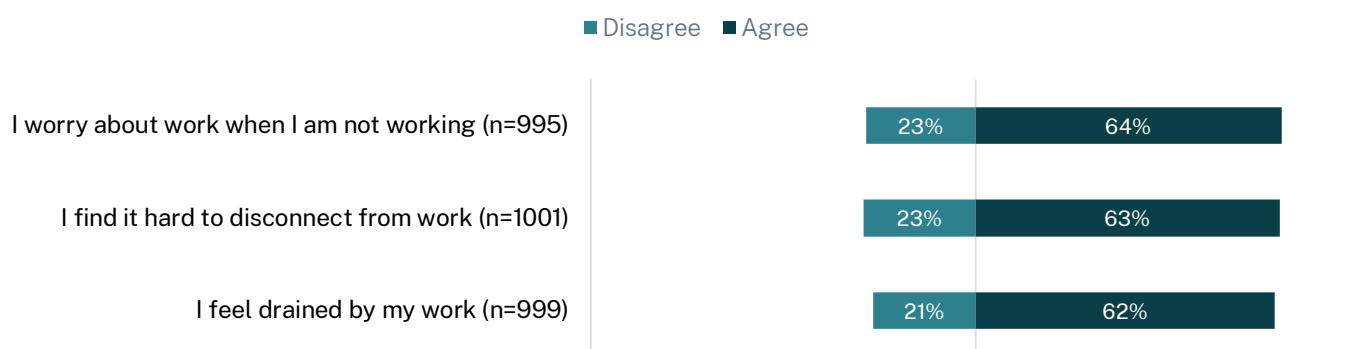
Figure 9. Burnout: 'For each item below, please indicate how much you agree or disagree with the statement.'

A Burnout Index ranging from 0 (no burnout) to 100 (complete burnout) was calculated for each respondent as a function of their responses to the three above statements (see Method section for details).

The ANOVA showed a significant effect for Industry ($F_{(4, 1000)} = 9$; $p < .01$), Business Size ($F_{(2, 955)} = 17.14$; $p < .01$) and Work Role ($F_{(3, 835)} = 4.37$; $p < .01$). Post-hoc tests (Bonferroni comparisons) indicated that (Fig.10):

- Healthcare workers felt statistically significantly more burnout than workers from Construction, Manufacturing and the other industries combined;

- workers from large or medium organisations felt statistically significantly more burnout than workers from small enterprises; and

- managers felt statistically significantly more burnout than workers.
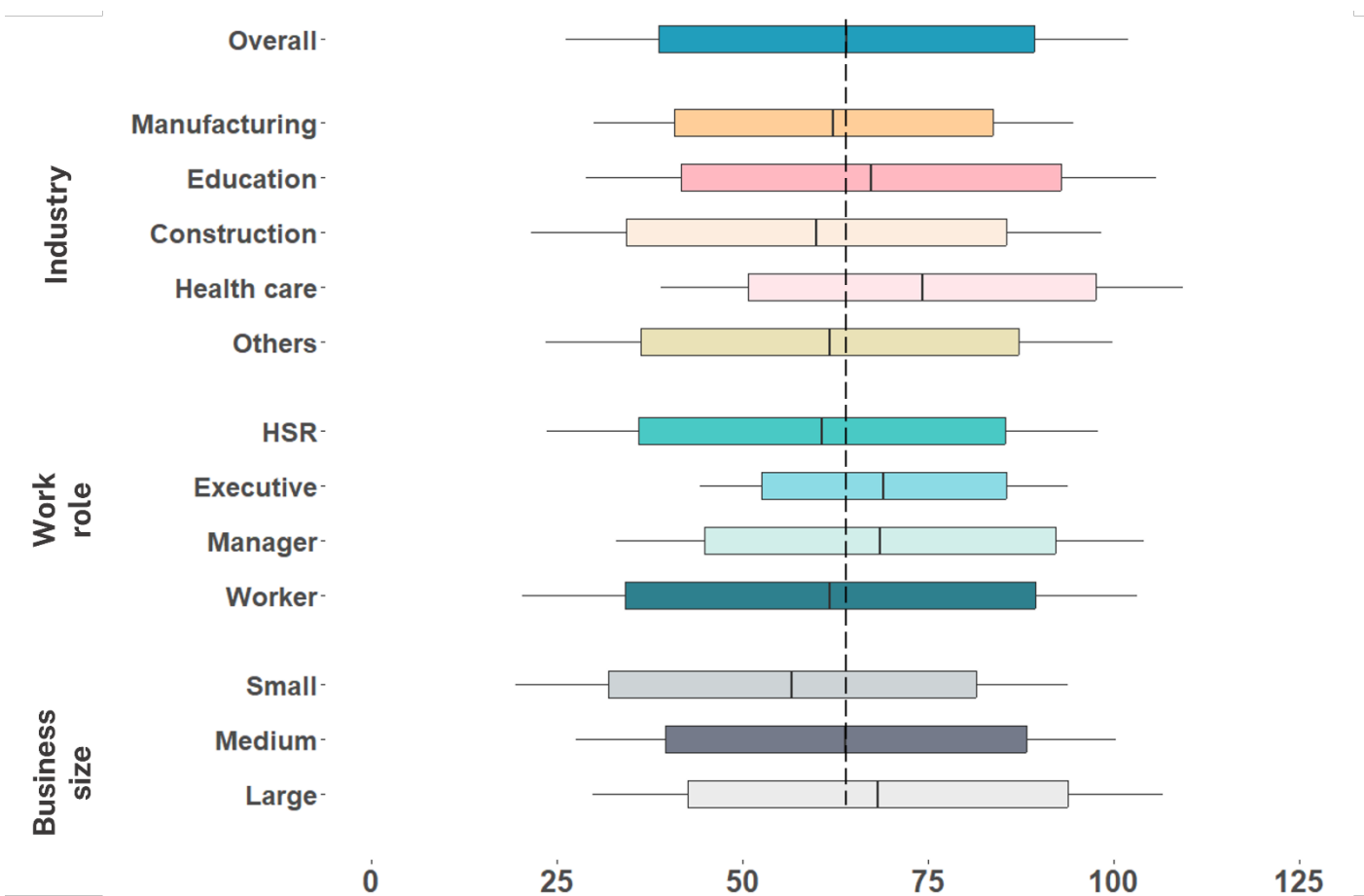
Figure 10. Workers' Burnout Index as a function of Industry, Work Role, and Business Size.

Psychosocial: job demands

- **Most respondents experience high levels of job demand and complexity**

Figure 11 shows respondents' answers to two statements designed by the Centre which aimed to assess the level of work demand experienced by the respondents in their role. High levels of job demands were reported by the sample, with more than two-thirds of respondents perceiving their job as demanding and fast-paced (68%), and three out of five respondents reporting regularly doing work outside of their worktime (61%).
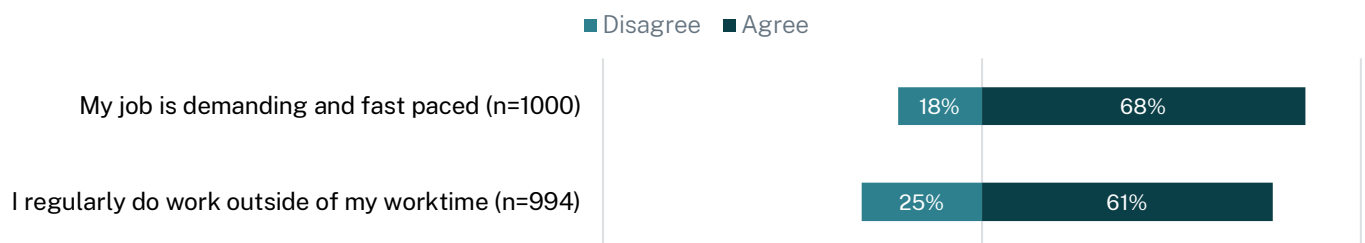
Figure 11. For each item below, please indicate how much you agree or disagree with the statement.

Figure 12 shows the responses to the statements which were integrated into the Survey from the PJQI instrument (Butterworth et al., 2011, see Appendix D) and which were distributed across four domains: job demand and complexity, job control, job security, and effort-reward fairness. Responses against the statements related to job demand and complexity also indicated high levels of job demands across the sample, with two-thirds of respondents perceiving their job as being complex and difficult (66%), and more than half as being more stressful than they had ever imagined (53%).
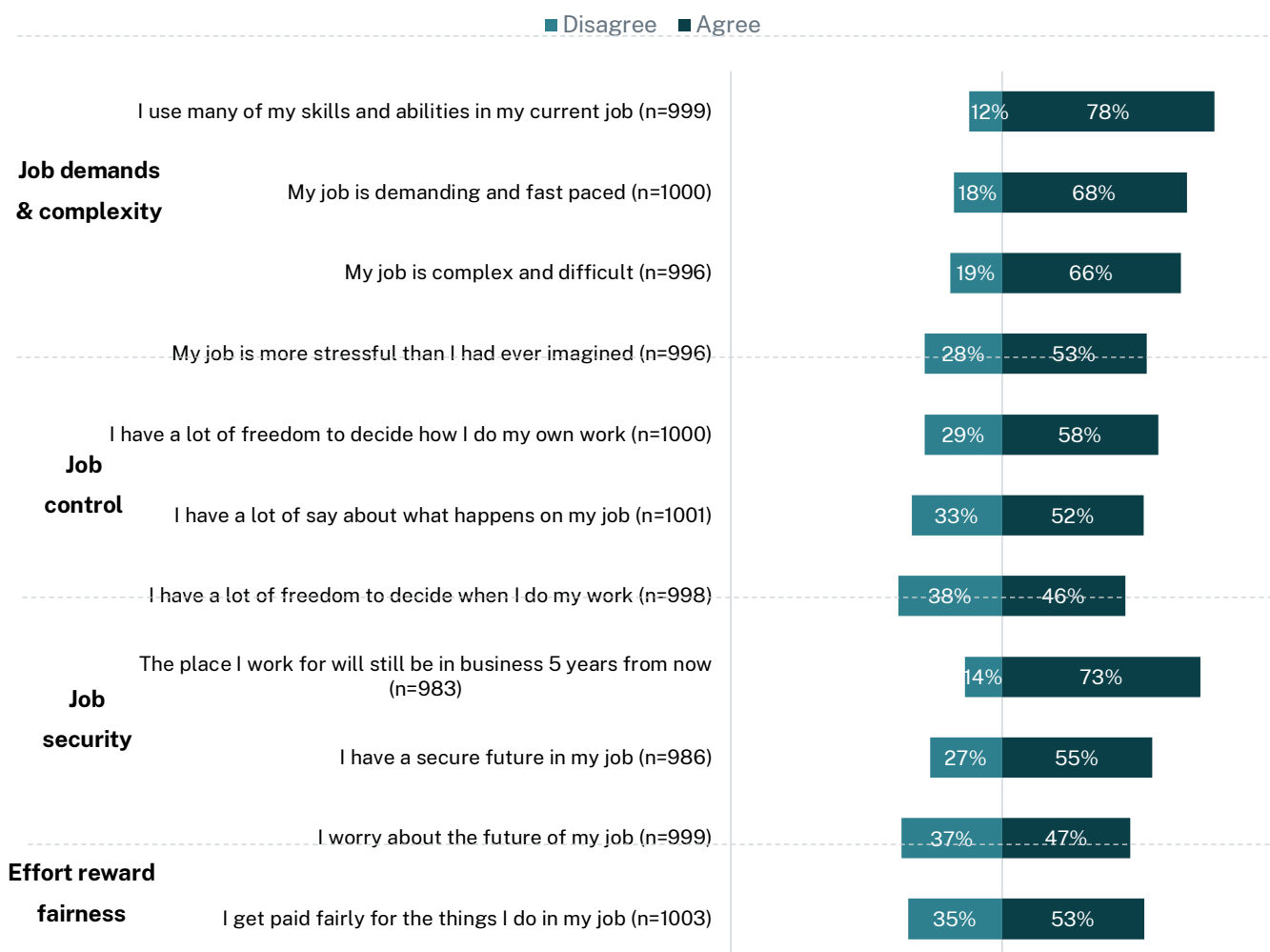
Figure 12. Responses to the statements integrated from PJQI (see Butterworth et al., 2011, Appendix D): 'For each item below, please indicate how much you agree or disagree with the statement.

Based on their responses to the above statements, three out of ten respondents were identified as experiencing a high level of job demand and complexity (28.4%, see Table 2, and Butterworth et al., 2011 for definition and calculation method). A chi-square statistical analysis revealed that a high level of job demand and complexity was to be most likely experienced by female workers, older workers, workers with more than school-level education, non-diverse

workers, workers from large organisations, managers and supervisors (in comparison to workers), full-time workers, workers from Health care, and workers from government organisations (details Appendix E – Table 1).

Table 2. Frequencies for high job demand, low job control, low job security, and low effort-reward fairness, as defined by Butterworth et al., 2011.

		High Job demand and complexity	Low job control	Low job security	Low effort-reward fairness
No. of respondents	Valid	1,004	1,008	1,006	1,003
	Missing	13	9	11	14
Mean		20.3	12.9	14.3	4.3
Std. Deviation		5.0	5.0	3.2	1.9
Range		4 to 28	3 to 21	`3 to 21	1 to 7
Cut off		24	9	13	3
No. above cut off		285	274	309	352
% above cut off		28.4%	27.2%	30.7%	35.1%

Psychosocial: job control

Figure 12 shows a mix of perceptions regarding the level of job control experienced by respondents, with over half experiencing a lot of freedom to decide how they do their own work (58%), and just under half feeling they have a lot of freedom to decide when they do their work (46%).

Almost three out of ten respondents were considered to be experiencing a low level of job control (27.2%, see Table 4, and Butterworth et al., 2011 for definition and calculation method). A chi-square statistical analysis revealed that a low level of job control was to be most likely experienced by workers (in comparison to managers or executives), young workers, workers with school-level education, full-time workers, workers from Health care, and workers from government organisations (details Appendix E – Table 1).

Psychosocial: job security

The level of job security experienced by the sample was moderately high, with around three-quarters of respondents feeling confident that the place they currently work will still be in business five years from now (76%), and about half indicating that their future in their job was secure (57%).

Three out of ten respondents were considered to be experiencing a low level of job security (30.7%, see Table 2, and Butterworth et al., 2011 for definition and calculation method). A chi-

square statistical analysis revealed that a low level of job security was to be most likely experienced by male workers, young workers, workers with school-level education, diverse-identified workers, workers from small businesses, workers on a casual contract, workers from private organisations and workers from the Manufacturing sector (details Appendix E – Table 1).

Psychosocial: effort-reward fairness

Mix perceptions were reported regarding effort-reward fairness, with just over one-half of respondents agreeing that they get paid fairly for the things they do in their job (53%).

A third of respondents were considered to be experiencing a low level of effort-reward fairness (Table 2, see Butterworth et al., 2011 for definition and calculation method). A chi-square statistical analysis revealed that a low level of effort-reward fairness was to be most likely experienced by workers (in comparison to managers or executives), young workers, workers with school-level education, full-time workers, workers from Health care, and workers from government organisations (details Appendix D – Table 1).

Psychosocial: Workers' Job Quality Psychosocial Risk

Table 3 below shows the distribution of the respondents' Job Quality Psychosocial Risk. Each respondent's Job Quality Psychosocial Risk ranges from 0 to 4 and reflects the respondent's level of risk of psychosocial harm as a function of their perceived job quality. Respondents with a score of 3 and 4 were determined to be 'at risk' (see Butterworth et al., 2011, for method).

Overall, 16.3% of respondents classified as 'at-risk', i.e., presented a high risk of psychosocial harm as a function of their perceived poor job quality.

Table 3. Distribution of the Workers' Job Quality Psychosocial Risk

Risk	n	%
0	318	31.7
1	327	32.6
2	194	19.4
3	149	14.9
4	14	1.4
Total	1,002	100.0

Awareness of WHS rights and responsibilities

- Most respondents felt that they are aware of their and their employer's WHS rights and responsibilities

Three-quarters of respondents felt clear about their WHS rights and responsibilities (75%), and about three-quarters felt clear about their employer's rights and responsibilities (74%). A strong majority of respondents also felt confident that they understood the necessary precautions they should take whilst doing their job (80%) and how to perform their job in a safe manner (79%).
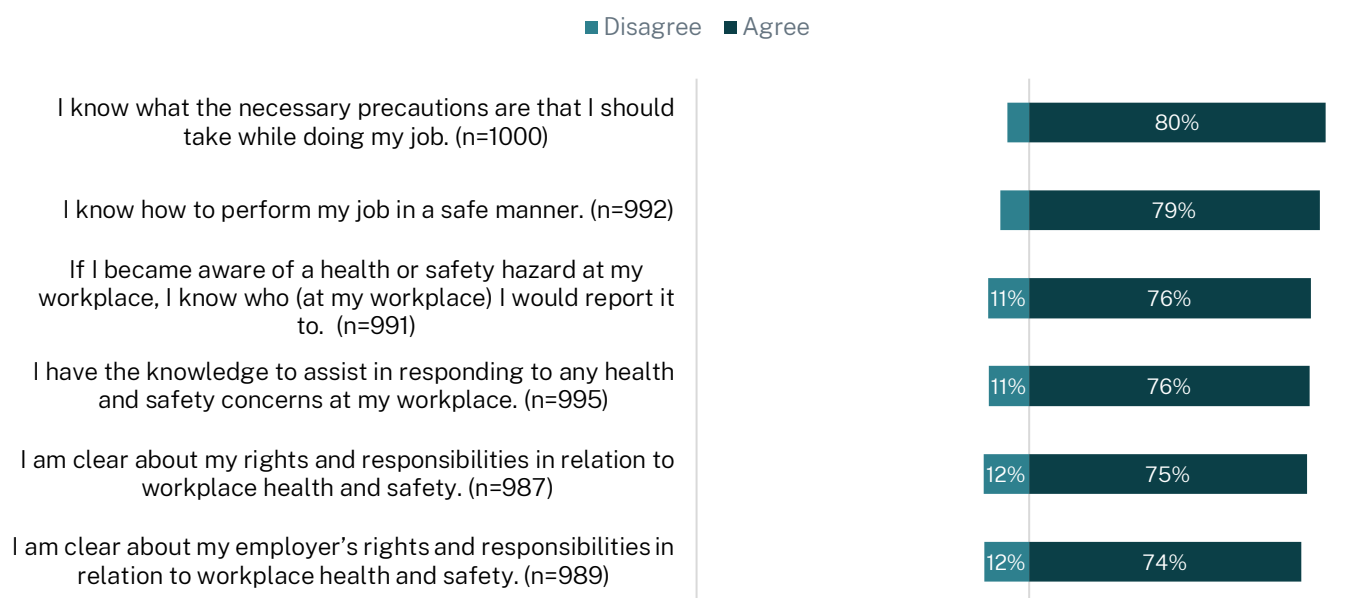
Figure 13. Awareness of WHS rights and responsibilities (integrated into the Survey from OHSVM, see Lay et al., 2016): 'For each item below, please indicate how much you agree or disagree with the statement.'

A quarter of respondents were found to show inadequate levels of WHS awareness (25.4%, see Appendix E – Table 2, and Lay et al., 2016, for details on the definition and method of calculation). A chi-square analysis revealed that workers with inadequate awareness of WHS were more likely to be workers (in comparison to managers and executives), younger workers, workers from a diverse community (CALD, First Nations Australians, migrants, LGBTQIA+ or disability), workers with school level education, workers in industries other than Construction, Healthcare, Education and Manufacturing, workers in small businesses and workers from the private sector (Appendix E – Table 3).
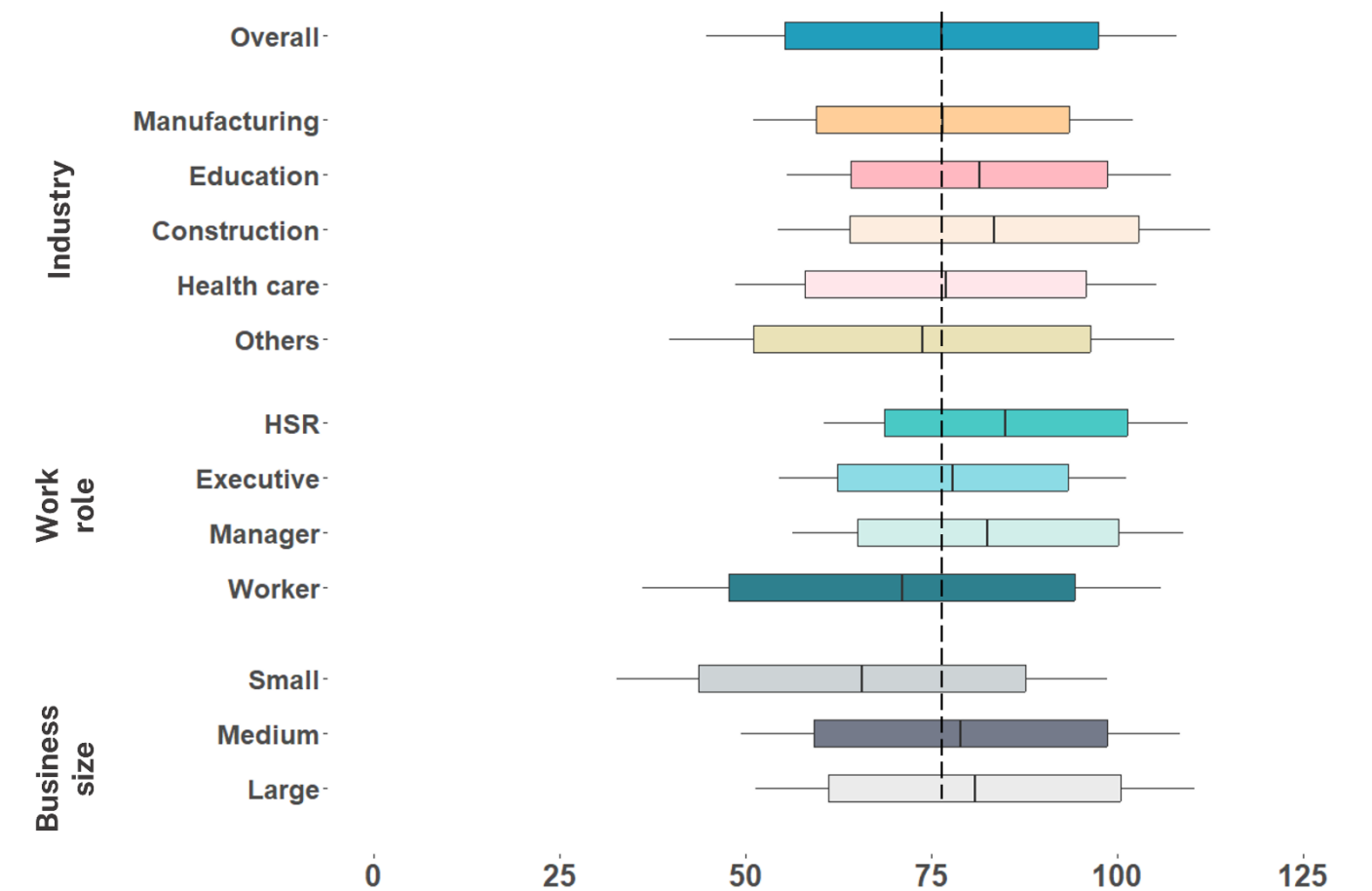
Figure 14. Workers' WHS Awareness Index as a function of Industry, Work Role, and Business Size.

A Worker's WHS Awareness Index ranging from 0 (no awareness) to 100 (complete awareness) was also estimated for each respondent as a function of their responses to the six above statements (see Method section for details).

The one-way analysis of variance (ANOVA) showed a significant effect for Industry ($F_{(4, 1002)}$ = 7.06; $p < .01$), Business Size ($F_{(2, 957)}$ = 48.09; $p < .01$) and Work Role ($F_{(3, 837)}$ = 22.23; $p < .01$). Post-hoc tests (Bonferroni comparisons) indicated that (Fig.14):

- Construction workers and Education workers felt statistically significantly more aware than workers from other industries combined;

- workers from large and medium organisations felt statistically significantly more aware than workers from small enterprises; and

- managers and HSRs felt statistically significantly more aware than workers.

Empowerment to participate in WHS prevention.

Results show mixed responses with respect to workers' empowerment to participate in WHS prevention.

A large majority of respondents felt confident that they would report a workplace hazard to their management if they noticed one (80%). However, only around two-thirds of respondents felt free to voice concerns or make suggestions about WHS (64%) or felt that they could stop work if something was unsafe (60%). More concerning, just over half of respondents felt that they had enough time to complete their tasks safely (55%).

■ Disagree ■ Agree

Statement	Disagree	Agree
If I notice a workplace hazard, I would point it out to management (n=990)		80%
I feel free to voice concerns or make suggestions about workplace health and safety at my job (n=983)	20%	64%
I have a good working relationship with my manager (n=989)	16%	63%
I know that I can stop work if I think something is unsafe and management will not give me a hard time (n=985)	22%	60%
I have enough time to complete my work tasks safely (n=993)	24%	55%
If my work environment was unsafe I would not say anything, and hope that the situation eventually improves (n=989)	58%	25%

Figure 15. Empowerment to participate in WHS prevention (integrated into the Survey from OHSVM, see Lay et al., 2016): 'For each item below, please indicate how much you agree or disagree with the statement.'

Half of respondents were found to show inadequate levels of WHS empowerment (54.3%, see Appendix E – Table 2, and Lay et al., 2016, for details on the definition and method of calculation). A chi-square analysis revealed that workers with inadequate empowerment were more likely to be younger workers, workers with school-level education, workers from a diverse community (CALD, First Nations Australians, migrant, LGBTQIA+ or disability), workers in Healthcare or Manufacturing, workers in small businesses, and workers in a contract other than full-time (Appendix E – Table 3).
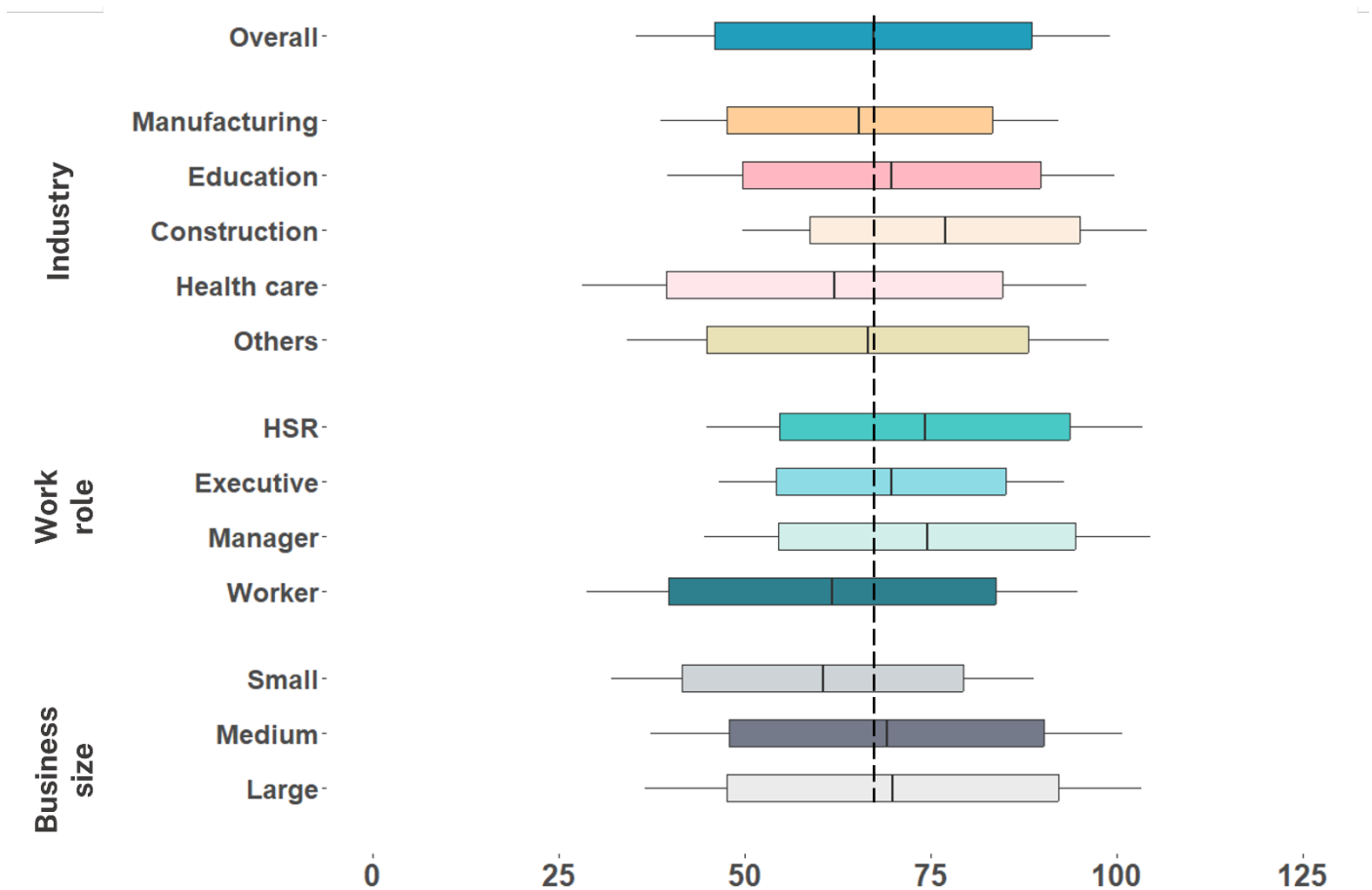
Figure 16. Workers' WHS Empowerment Index as a function of Industry, Work Role, and Business Size.

A Worker's WHS Empowerment Index ranging from 0 (no empowerment) to 100 (complete empowerment) was estimated for each respondent as a function of their responses to the six above statements (see Method section for details).

The one-way analysis of variance (ANOVA) showed a significant effect for Industry ($F_{(4, 999)}$ = 9.21; $p < .01$), Business Size ($F_{(2, 954)}$ = 17.60; $p = .03$) and Work Role ($F_{(3, 834)}$ = 23.09; $p < .01$). Post-hoc tests (Bonferroni comparisons) indicated that (Fig.16):

- Healthcare workers felt statistically significantly less empowered than workers from other industries, including Construction, Education, Manufacturing or all other industries combined;

- workers in small enterprises felt statistically significantly less empowered than those in large or medium-size organisations; and

- workers felt statistically significantly less empowered than the managers, the executives and the HSRs.

Vulnerability

- Nearly half of the respondents (44.8%) were considered vulnerable to illness and injury in the workplace.

A Worker's Vulnerability Flag was computed and enabled to identify respondents who were vulnerable to illness and injury in the workplace (see Method section for details).

Almost half of the respondents were flagged as being vulnerable (see Appendix E – Table 2). A chi-square statistical analysis revealed that workers from a diverse community (CALD, First Nations Australians, migrant, LGBTQIA+ or disability), workers from the Healthcare sector, workers in medium size organisations, workers not on full-time contracts and workers from government organisations were most likely to be vulnerable to illness and injury in the workplace (see Appendix E – Table 3).

Workplaces' WHS profile

WHS Policies and Procedures

Respondents reported mixed experiences regarding the level of WHS policies and procedures that were in place in their workplaces. Figure 17 shows the answers of respondents against the statements related to WHS policies and procedures in the workplace, integrated into the Survey from the OHSVM instrument (see Lay et al., 2016).

Just under two-thirds of respondents felt confident that their workplace had systems in place to identify, prevent and deal with hazards at work (63%). Six out of ten respondents indicated that their workplace communicated about WHS procedures in an understandable way, and six out of ten also agreed that WHS was seen as just as important as productivity and work quality (59%).

Legend: ■ Disagree ■ Agree

Statement	Disagree	Agree
Systems are in-place to identify, prevent and deal with hazards at work (n=994)	18%	63%
Communication about workplace health and safety procedures is done in a way that I can understand (n=985)	19%	60%
Health and safety is at least as important as production and quality in the way work is done (n=993)	22%	59%
There is regular communication between workers and management about health and safety issues (n=985)	26%	55%
Everyone receives the necessary health and safety training when starting a job, changing jobs, or using new…	27%	53%
Incidents and accidents are investigated quickly in order to improve workplace health and safety (n=962)	24%	53%
There is an active and effective health and safety committee, and/or health and safety representative (n=963)	25%	53%

Figure 17. WHS policies and procedures in place in the workplace (integrated into the Survey from OHSVM, see Lay et al., 2016): 'For each item below, please indicate how much you agree or disagree with the statement.'

Half of respondents were found to report inadequate policies and procedures in place at their workplaces (49%, see Appendix E – Table 2, and Lay et al., 2016 for details on the definition and method of calculation). A chi-square analysis revealed that workers (in comparison to managers and executives), younger workers, workers with school-level education, workers from the Healthcare sector, and workers from governmental and NFP organisations were more likely to report inadequate policies and procedures in place at their workplaces (Appendix E – Table 3).

A Workplace's WHS Systems Index ranging from 0 (no WHS systems in place) to 100 (complete systems in place) was estimated for each respondent's workplace as a function of their responses to the seven above statements (see Method section for details).

The one-way analysis of variance (ANOVA) showed a significant effect for Industry ($F_{(4, 1000)}$ = 13.38; $p < .01$) and Work Role ($F_{(3, 835)}$ = 20.24; $p < .01$). Post-hoc tests (Bonferroni comparisons) indicated that (Fig.18):

- workplaces in the Healthcare sector were perceived as showing a statistically significantly lower level of WHS systems in place in comparison to workplaces in all other sectors, including Construction, Education, Manufacturing and all other industries combined; Workplaces in Construction were perceived as showing a statistically significantly higher level of WHS systems in place in comparison to workplaces from the Education sector and from the other industries combined;

- the level of WHS systems in place in workplaces was perceived as being statistically significantly lower by workers than by managers, executives or HSRs.
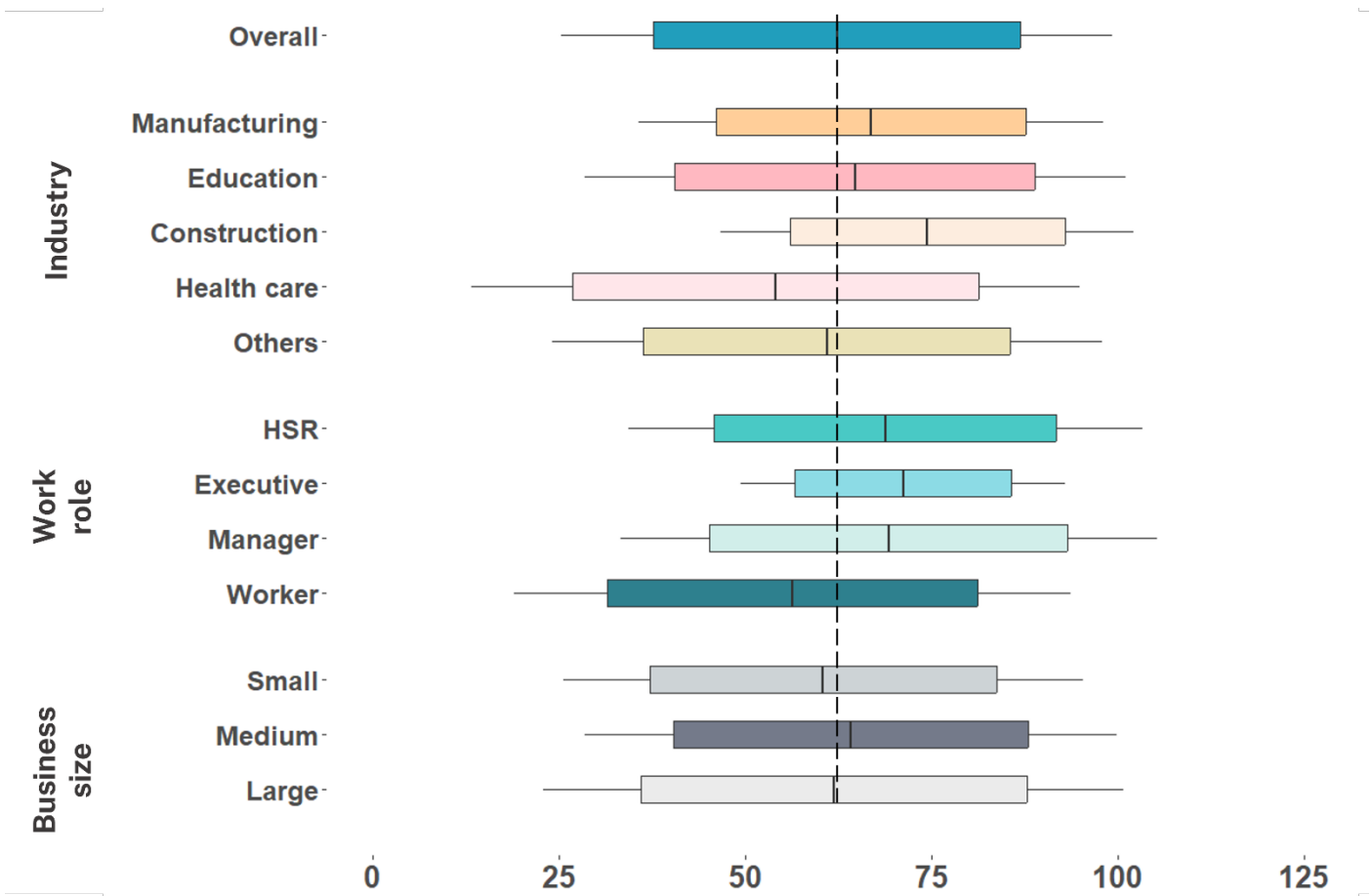
Figure 18. Workplaces' WHS Systems Index as a function of Industry, Work Role, and Business Size.

Workplaces' WHS commitment and practices

Mixed results were found regarding the level of commitment toward, and practices implemented to support WHS in workplaces. Figure 19 shows the answers of respondents against the statements related to WHS commitment and practices in the workplace, which were designed by the Centre.

Half of the respondents felt that their leaders demonstrate a commitment to healthy work, creating a strong safety culture (53%), and half agreed with the view that their supervisors are supported to make decisions to aid the physical and psychological safety of all workers (53%). A lesser proportion of respondents felt confident that systems were in-place to proactively manage hazards that could affect their mental health (45%).

Disagree ■ Agree

Statement	Disagree	Agree
Leaders demonstrate a commitment to healthy work creating a strong safety culture (n=994)	24%	53%
Supervisors are supported to make decisions to aid the physical and psychological safety of all workers (n=968)	24%	53%
Systems are in place to manage WHS in support of flexible work practices and flexible work environments (n=982)	24%	53%
I have confidence that my privacy and confidentiality is protected when new technology is introduced (n=981)	24%	50%
WHS is a priority when new technology is introduced, including assessing and managing risks; consulting and communicating with workers; and conducting training in the safe use (n=966)	26%	48%
Systems are in-place to proactively manage hazards that could affect my mental health (n=995)	31%	45%

Figure 19. WHS commitment and practices in the workplace: 'For each item below, please indicate how much you agree or disagree with the statement.'

A Workplace's WHS Commitment Index ranging from 0 (no commitment) to 100 (complete commitment) was calculated for each respondent as a function of their responses to the six above statements (see Method section for details).

The one-way analysis of variance (ANOVA) showed a significant effect for Industry ($F_{(4, 1002)}$ = 13.44; $p < .01$), Business Size ($F_{(2, 957)}$ = 4.82; $p < .01$) and Work Role ($F_{(3, 837)}$ = 17.86; $p < .01$). Post-hoc tests (Bonferroni comparisons) indicated that (Fig.20):

- workplaces from the Healthcare sector were perceived as showing a statistically significantly lower level of commitment to WHS than workplaces from other sectors, including Construction, Education, Manufacturing or all other sectors combined;

- workplaces of large organisations were perceived as showing a statistically significantly lower level of commitment to WHS than workplaces of medium or small enterprises; and

- the level of WHS commitment in workplaces was perceived as being statistically significantly lower by workers than by managers, executives or HSRs.
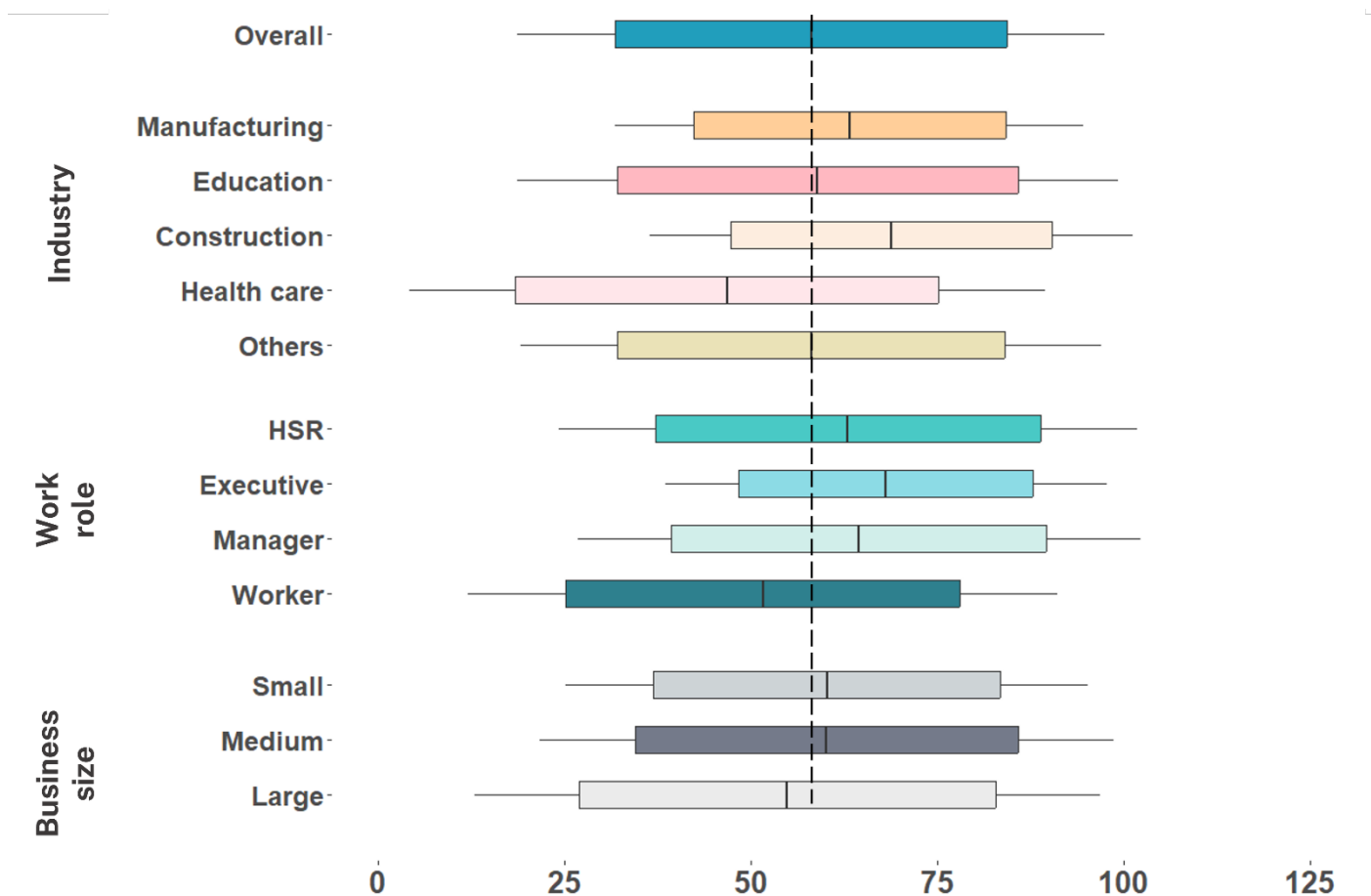
Figure 20. Workplaces' WHS Commitment Index as a function of Industry, Work Role, and Business Size.

Barriers to good WHS practice

Figure 21 and Table 4 show the breakdown of the responses regarding barriers to good WHS practice at work. The overall top three barriers were: 1) time constraints or lack of resources (44.6% of respondents indicated this specific barrier), 2) de-prioritisation of WHS (38.3%), and 3) cost implications (31.1%).

'The limited knowledge of WHS risks and hazards in the workplace' was also specifically pointed out as one of the top three barriers by workers from the Manufacturing sector, by executives and HSRs.

'The limited understanding of the WHS obligations' was mentioned as one of the top three barriers by respondents in worker and executive roles.

Workers from small businesses had a completely different top 3 of barriers in comparison to workers from larger organisations, emphasizing that 'the limited understanding of the WHS obligations', 'the limited knowledge of WHS risks and hazards in the workplace', and 'the complexity of the task' were the main barriers in those workplaces.

Time constraints or lack of resources (n=454)	45%
Prioritising items believed to be more important over work health and safety (n=390)	38%
Cost implications (n=316)	31%
Limited understanding of the WHS obligations (n=309)	30%
Limited knowledge of the specific risks and hazards present in the workplace (n=275)	27%
No expertise to manage WHS (n=205)	20%
It's too complex, I don't know where to start (n=176)	17%
Other (please specify) (n=109)	11%

Figure 21. What stands in the way of good WHS practice at your work? (select all that apply)

A consequent number of respondents opted to list 'other' barriers (n=109), with the most frequently cited barrier being that WHS was undervalued by leaders and management (n=16). Other responses mentioned inadequate internal systems and processes (n=8), insufficient inspections (n=2) or enforcement (n=8) by the regulator, poor worker culture (n=3), and insufficient training (n=2).

Table 4. Frequency distributions of barriers as a function of Industry, Business Size and Work Role. The top three barriers are indicated in bold.

	Time constraints or lack of resources.		Prioritising items believed to be more important than work health and safety.		Cost implications		Limited understanding of the WHS obligations		Limited knowledge of the specific risks and hazards present in the workplace		No expertise in managing WHS.		It's too complex. I don't know where to start.	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Total	454	**44.6%**	390	**38.3%**	316	**31.1%**	309	30.4%	275	27.0%	205	20.2%	176	17.3%
Industry (top 5)														
Healthcare	96	**61.9%**	94	**60.6%**	63	**40.6%**	39	25.2%	45	29.0%	45	29.0%	19	12.3%
Construction	56	**48.7%**	41	**35.7%**	47	**40.9%**	30	26.1%	25	21.7%	15	13.0%	16	13.9%
Education	52	**51.0%**	39	**38.2%**	28	**27.5%**	21	20.6%	22	21.6%	20	19.6%	18	17.6%
Manufacturing	38	**45.8%**	26	31.3%	33	**39.8%**	24	28.9%	28	**33.7%**	22	26.5%	22	26.5%
Others	212	**37.7%**	190	**33.8%**	145	25.8%	195	**34.7%**	155	27.6%	103	18.3%	101	18.0%
Business size														
Large (200+)	230	**54.6%**	214	**50.8%**	142	**33.7%**	122	29.0%	107	25.4%	81	19.2%	50	11.9%
Medium (20-199)	131	**46.8%**	113	**40.4%**	96	**34.3%**	56	20.0%	71	25.4%	64	22.9%	46	16.4%
Small or less (<19)	68	25.3%	42	15.6%	59	21.9%	117	**43.5%**	79	**29.4%**	46	17.1%	68	**25.3%**
Work role														
Worker	206	**41.78%**	200	**40.57%**	128	25.96%	169	**34.28%**	122	24.75%	114	23.12%	79	16.02%
Supervisor/Manager	103	**48.58%**	76	**35.85%**	72	**33.96%**	59	27.83%	43	20.28%	31	14.62%	24	11.32%
Executive/Board member	22	**45.83%**	12	**25.00%**	9	18.75%	12	**25.00%**	12	**25.00%**	8	16.67%	9	18.75%
Health &Safety Rep	53	**54.08%**	37	37.76%	45	**45.92%**	30	30.61%	33	**33.67%**	14	14.29%	19	19.39%

Enablers of good WHS practice

Figure 22 and Table 5 give the breakdown of the responses in regard to enablers of good WHS practice at work. The overall top three enablers were: 1) strong leadership and commitment (44.6% of respondents picked this specific enabler), 2) communication and consultation with all workers (42.1%), and 3) risk assessment and active management (41.8%).

'Training and education' were also specifically called out as one of the top three enablers by Healthcare workers and workers from large organisations. 'Adequate resources, including people and safety equipment' was specifically pointed out by workers from the Manufacturing sector.

Note that workers from small businesses had a different take on what enables good WHS practice in their workplace, as 'Adequate resources including people and safety equipment' and 'Return on investment' were mentioned in their top three drivers.

Finally, 'training and education' and 'adequate resources including people and safety equipment' were also front of mind and part of the top three enablers for respondents in 'worker' roles in contrast to those in manager, executive and HSR roles.
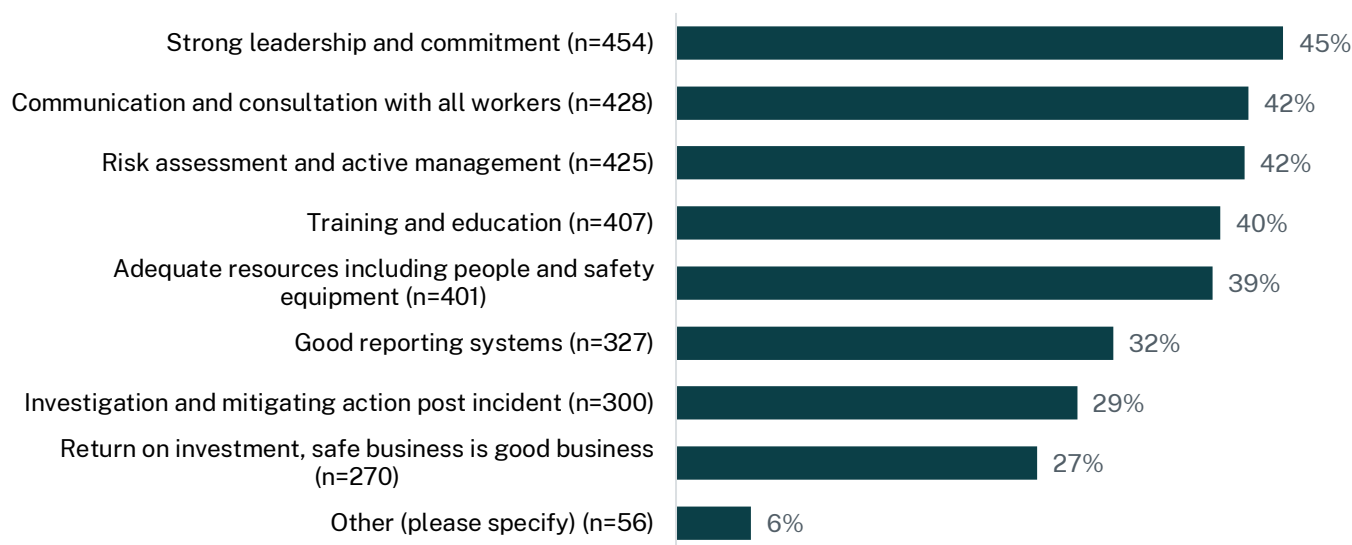
Figure 22. What drives good WHS practice at your work? (select all that apply) (n=1017)

Few respondents opted to provide 'other' enablers of good WHS practice (n=57), identifying enablers such as a strong overall safety culture (n=8), good WHS systems and practices (n=5), a strong WHS team (n=4), and fear of the regulator (n=3).

Table 5. Frequency distributions of enablers as a function of Industry, Business Size and Work Role. The top three enablers are indicated in bold.

	Strong leadership and commitment		Communication and consultation with all workers		Risk assessment and active management		Training and education		Adequate resources, including people and safety equipment		Good reporting systems		Investigation and mitigating action post incident		Return on investment, safe business is good business	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Total	454	**44.6%**	428	**42.1%**	425	**41.8%**	407	40.0%	401	39.4%	327	32.2%	300	29.5%	270	26.5%
Industry (top 5)																
Healthcare	52	33.5%	58	**37.4%**	62	**40.0%**	65	**41.9%**	50	32.3%	52	33.5%	50	32.3%	13	8.4%
Construction	65	**56.5%**	72	**62.6%**	66	**57.4%**	63	54.8%	60	52.2%	50	43.5%	44	38.3%	38	33.0%
Education	56	**54.9%**	45	**44.1%**	41	**40.2%**	44	43.1%	40	39.2%	40	39.2%	37	36.3%	18	17.6%
Manufacturing	38	**45.8%**	36	**43.4%**	26	31.3%	25	30.1%	37	**44.6%**	20	24.1%	26	31.3%	34	41.0%
Others	243	**43.2%**	217	**38.6%**	230	**40.9%**	210	37.4%	214	38.1%	165	29.4%	143	25.4%	167	29.7%
Business size																
Large (200+)	209	**49.6%**	202	**48.0%**	196	46.6%	218	**51.8%**	180	42.8%	176	41.8%	172	40.9%	95	22.6%
Medium (20-199)	132	**47.1%**	134	**47.9%**	126	**45.0%**	114	40.7%	102	36.4%	91	32.5%	87	31.1%	62	22.1%
Small or less (<19)	94	**34.9%**	69	25.7%	79	29.4%	55	20.4%	99	**36.8%**	40	14.9%	27	10.0%	100	**37.2%**
Work role																
Worker	182	**36.92%**	179	36.31%	181	36.71%	198	**40.16%**	182	**36.92%**	145	29.41%	133	27.0%	123	24.95%
Supervisor/Manager	106	**50.00%**	101	**47.64%**	97	**45.75%**	89	41.98%	78	36.79%	79	37.26%	80	37.7%	68	32.08%
Executive/Board member	23	**47.92%**	19	**39.58%**	18	**37.50%**	13	27.08%	16	33.33%	14	29.17%	8	16.7%	9	18.75%
Health &Safety Rep	57	**58.16%**	59	**60.20%**	52	**53.06%**	51	52.04%	51	52.04%	40	40.82%	38	38.8%	30	30.61%

Drivers to prioritise WHS

Figure 23 and Table 6 give the breakdown of the responses regarding drivers prioritising WHS at work. The overall top three drivers were: 1) if WHS was more valued by workers (37.6% of respondents picked this specific driver), 2) if WHS could impact the business's reputation (29.9%), and 3) if WHS was financially rewarding (29.4%).

Interestingly, the 'risk of injury' was picked as one of the top three drivers by Healthcare workers and Education workers, while Construction workers and Manufacturing workers picked 'if WHS was more valued by customers and investors' in their top three.

Similarly, the 'risk of injury' was specifically picked by workers from medium and large organisations, whereas workers from small businesses saw 'if WHS was more valued by customers and investors' as a stronger driver.

Finally, the 'risk of injury' was believed to be a main driver by workers, whereas executives and HSRs saw 'if WHS was more valued by customers and investors' as a stronger driver.
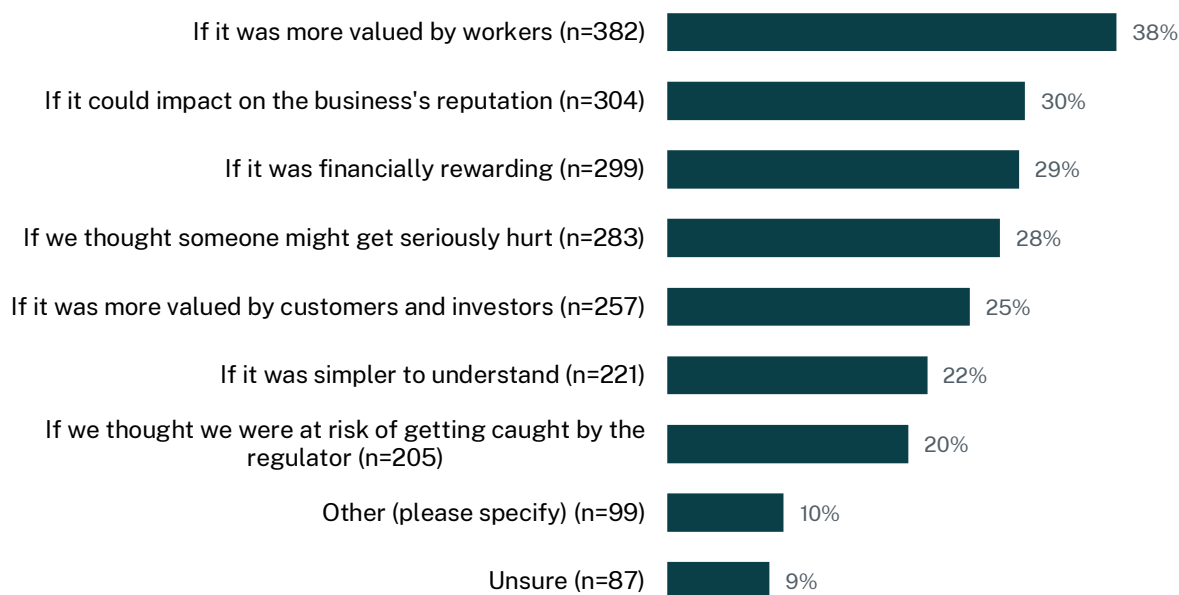
Figure 23. What would make WHS more of a priority at your work (select all that apply) (n=1,017)

A consequent proportion of respondents opted to specify 'other' drivers (n=99), mostly indicating the need for a greater commitment to (n=33) or understanding of (n=4) WHS obligations on the part of management.

Table 6. Frequency distributions of drivers as a function of Industry, Business Size and Work Role. The top three drivers are indicated in bold.

	Valued by workers		Impact on businesses' reputation		Financially rewarding		Risk of someone getting seriously hurt		Valued by customers and investors		Simpler to understand		Risk of getting caught by the regulator	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Total	382	**37.6%**	304	**29.9%**	299	**29.4%**	283	27.8%	257	25.3%	221	21.7%	205	20.2%
Industry (top 5)														
Healthcare	43	**27.7%**	51	**32.9%**	41	26.5%	44	**28.4%**	28	18.1%	24	15.5%	28	18.1%
Construction	51	**44.3%**	38	33.0%	42	**36.5%**	36	31.3%	38	**33.0%**	34	29.6%	15	13.0%
Education	37	**36.3%**	41	**40.2%**	28	27.5%	34	**33.3%**	16	15.7%	24	23.5%	27	26.5%
Manufacturing	41	**49.4%**	19	22.9%	35	**42.2%**	29	34.9%	31	**37.3%**	16	19.3%	20	24.1%
Others	210	**37.4%**	155	**27.6%**	153	**27.2%**	140	24.9%	144	25.6%	123	21.9%	115	20.5%
Business size														
Large (200+)	148	**35.2%**	164	**39.0%**	124	29.5%	130	**30.9%**	89	21.1%	85	20.2%	91	21.6%
Medium (20-199)	98	**35.0%**	91	**32.5%**	86	30.7%	87	**31.1%**	74	26.4%	67	23.9%	56	20.0%
Small or less (<19)	122	**45.4%**	34	12.6%	78	**29.0%**	46	17.1%	71	**26.4%**	56	20.8%	43	16.0%
Work role														
Worker		**38.34%**	153	**31.03%**	136	27.59%	144	**29.21%**	98	19.88%	88	17.85%	93	18.86%
Supervisor/Manager	85	**40.09%**	67	**31.60%**	68	**32.08%**	61	28.77%	48	22.64%	48	22.64%	42	19.81%
Executive/Board member	9	18.75%	7	14.58%	12	**25.00%**	6	12.50%	12	**25.00%**	12	**25.00%**	8	16.67%
Health &Safety Rep	49	**50.00%**	36	**36.73%**	32	32.65%	27	27.55%	33	**33.67%**	26	26.53%	23	23.47%

Future of Work

This last section reports findings in regard to respondents' experiences with (a) new or emerging work health and safety issues in their workplace, and (b) potential preventative measures to address these issues.

New or emerging health and safety issues in the workplace

Almost half of the respondents indicated that they had experienced or witnessed at least one new or emerging health and safety issue in the past six months (45%). Almost all of those respondents experienced or witnessed issued related to new or emerging behaviours, attitudes or practices (99%), followed by issues related to new or emerging ways of working (70%), and issues related to new or emerging technologies (52%).

Figure 24 shows the counts and proportions as a function of the total Survey sample.
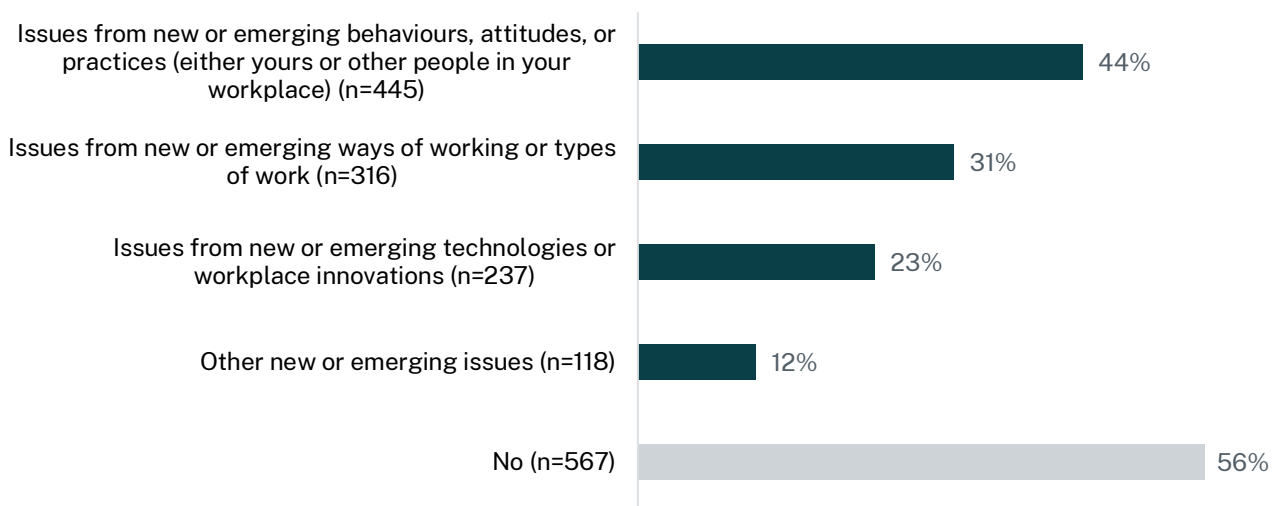
Figure 24. Responses to the question: In the past six months, have you experienced or witnessed any new or emerging health and safety issues? Please select all that apply.'

Issues from new or emerging behaviours, attitudes, or practices (either yours or other people in your workplace)

- **De-prioritisation and devaluation of WHS (n=77)**

Respondents are observing a lack of or decreasing consideration of WHS in the workplace, discussing some of the potential drivers:

- the emergence of a degree of complacency and acceptance of unsafe practices, particularly in the face of increasing work demands and pressure;

- the entry of younger, inexperienced workers who did not have adequate knowledge and training in WHS;

- the resistance of older workers to adapt to new WHS standards and processes;

"People see safety as additional admin burden rather than the way work should be done."

- the lack of awareness and commitment of organisation's leaders to prevent and respond to WHS issues in the workplace, with examples of insufficient response to WHS issues even when they were raised by staff;

- the lack of, or ineffectiveness of WHS processes;

"Attitudes of Managers & Leaders are not conducive to a proactive WHS culture at my workplace."

- The de-prioritisation of achieving the safety outcome by leaders in comparison to meeting the financial or business objectives.

- **The normalisation of staff shortage and constant turnover (n=46)**

Respondents frequently raised that chronic staff shortages, high staff turnover and (as a result) the introduction of inexperienced workers in their organisation are resulting in increasingly unsafe behaviours and work practices in their workplace. Most respondents indicated that, due to a currently tight labour market, operating with staffing shortages and inexperienced labour was increasingly becoming 'normalised' in their workplace. Further, respondents highlighted that despite these conditions, their organisation still expected them to maintain or had increased work demand in their workplace.

"Working short-staffed is the new norm by the majority of staff...Business as usual [pressures continue] even though the required amount of staff are not on shift."

"Extreme short staffing, which means most people are cutting corners, and this is encouraged by management in order to get the job done with less people."

Respondents felt they did not have time to complete work safely, time to have appropriate skills within their organisation to operate and/or monitor safety, and little capacity to train new staff.

The mismanagement of instances of bullying and/or harassment in the workplace (n=42)

Respondents have observed varying types of bullying and harassment, including physical violence and aggression, racism, homophobia, sexism and ageism.

"Bullying is tolerated and increasing... allegations were not taken seriously by senior management."

Respondents were critical of their organisation's approach to tackling this issue, most of whom noted little action was taken to address this issue even after it had been reported in their workplace.

Increasing psychosocial issues (n=29)

Respondents have also observed and experienced increasing psychosocial issues, including stress and poor mental health in their workplace. Respondents note that this is being primarily driven by understaffing in organisations, along with the isolating effect of working-from-home arrangements implemented to mitigate COVID-19.

> *"I have noticed that there is a growing number of staff who are mentally overwhelmed."*

Respondents indicated that awareness of and practices to reduce psychosocial issues were increasing in their workplaces, particularly since the introduction of the new WHS model regulations and code of practice on addressing psychosocial hazards. However, respondents felt more practical guidance and organisational leadership/commitment were needed to put in place effective systems and mechanisms to address this issue.

Increasingly relaxed attitudes toward managing COVID-19 in the workplace (n=16)

Respondents have observed an increasingly relaxed attitude toward managing COVID-19 safely in their workplace – particularly since the implementation of return-to-work policies in their organisation. Respondents raised concerns about the impact that the relaxing of infection control and PPE requirements were having on safety in their workplace, along with concerns about their workplace having adequate ventilation; and increasingly relaxed attitudes of staff who were coming into work unwell.

Issues from new or emerging ways of working or types of work.

Unmanaged risks associated with working from home and flexible working arrangements (n=48)

Respondents frequently raised WHS issues related to working from home and hybrid/flexible working arrangements. The most common of these issues were the psychosocial impacts of working in an isolated environment with limited contact with their managers and other staff.

> *"Hybrid working poses new WHS challenges, which have not necessarily been considered nor are being managed in totality from a WHS lens."*

Further, respondents highlighted the potential and increasing risk of WHS issues in the home settings – particularly given these settings had limited oversight from WHS professionals and limited controls in place. Others indicated that, due to the ability to work from home, they were working longer hours, experiencing increased demands from their superiors or finding it hard to 'switch off' from work outside of work hours.

Insufficient training, risk assessment and change management for new ways of working (n=37)

Whilst general in nature with regard to the types of new ways of working they were referring to, respondents commonly observed that they often do not receive adequate training when new ways of working, technologies or systems are introduced as part of their work. Respondents also highlighted that adequate consideration for WHS and change management processes when implementing new ways of working are often overlooked by their leaders.

Issues from new or emerging technologies or workplace innovations

New technologies are being implemented without adequate WHS consideration, training or change management (n=37)

Many respondents acknowledged there was a high rate of change and introduction of new systems, technologies, and ways of working within their organisation. Most respondents spoke about the types of technologies and systems being implemented in their workplace in general terms, but new WHS reporting systems, administrative systems and project management/resource planning systems were the most common new technologies highlighted.

> *"The rate and pace of change from a tech standpoint at our organisation is high… WHS are rarely involved in early… Rather, WHS are brought in to support the fall out of poor change management."*

Respondents commonly highlighted new technologies and systems introduced in their organisation are often not fit for purpose and/or implemented poorly and with limited WHS consideration, including change management, risk assessment or adequate training. Respondents called for greater consultation with staff, realistic and adequate planning and safety stewardship to ensure these technologies can be successfully adopted by workers.

New technologies are creating inefficiencies and/or increasing risk (n=35)

By extension, respondents indicated that the pace of the introduction of technology into their workplace, coupled with limited training and change management processes, was leading to increased burden and inefficiencies. A common example highlighted by respondents was situations where newly implemented systems were not fit for purpose or had failed, and there was limited technical expertise within their organisation to facilitate repair.

Further, respondents also highlighted new technologies were creating risks. Some of these were psychosocial – particularly for desktop roles with the introduction of activity monitoring software, leading to a perceived need to constantly be 'online' or meet work demands. Others highlighted risks posed by technologies introduced on-site or in other environments, such as the use of mobile phones and headphones creating distractions and WHS issues.

"...risks associated with an Uber eats delivery driver on a scooter, riding through busy traffic and on footpaths, headphones in, checking their phone for GPS directions and incoming jobs etc."

Particularly those reflecting on the use of online systems, respondents were concerned their organisation were exposing themselves to the risk of data leaks and cyber security breaches.

Emerging WHS preventative measures and solutions

A third of respondents indicated that they had observed something new that could improve WHS in their workplace (36%). From those respondents, the most frequently cited new solution was in relation to new WHS guides, resources or materials (84%), followed by new legislation and codes of practice (73%) and new technologies (64%).

Figure 25 shows the counts and proportions as a function of the total Survey sample.
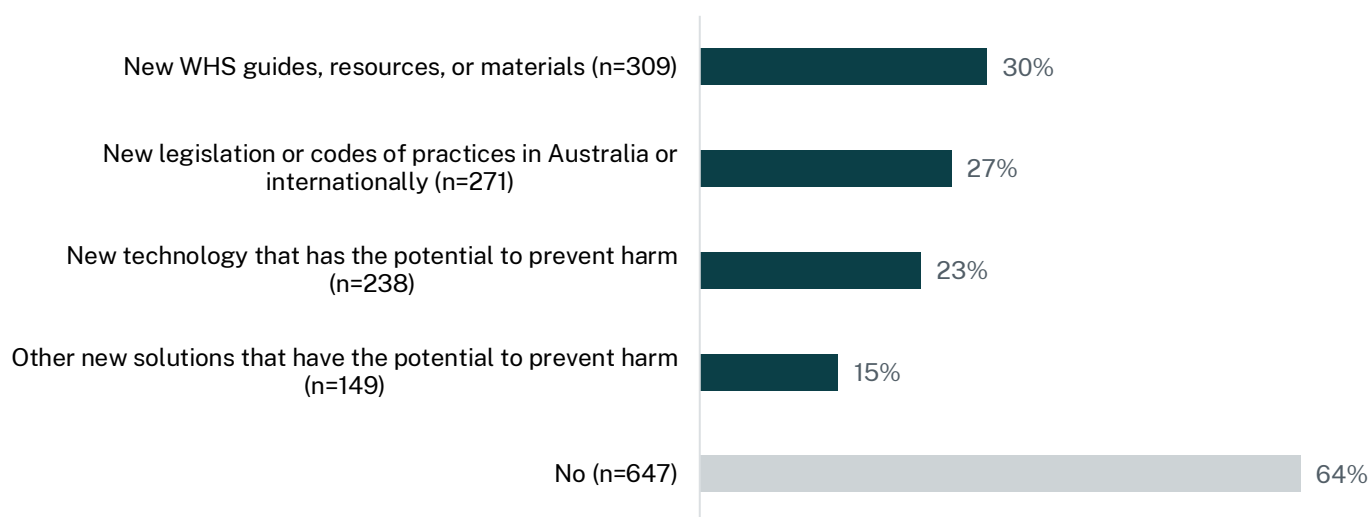
Figure 25. Responses to the question: In the past six months, have you seen anything new that can improve health and safety in your workplace? (n=1,017)

As part of this question, respondents were able to describe the types of preventive measures and solutions they had experienced or observed.

New WHS guides, resources, or materials, most dealing with psychosocial hazards

Whilst respondents identified a number of guidelines, resources and training released by regulators, industry peak bodies or released internally, most were related to managing psychosocial impacts in the workplace (n=24). Most respondents were positive about these resources, indicating they provided useful insight into the causes and potential measures to address this issue. However, some indicated more information and guidance was needed (from both the regulator and their organisation's leaders) to practically implement them in their workplace.

"Psychosocial injury stuff is great- but nobody in leadership seems to be implementing it or trained in it."

To a lesser extent, safety guidelines and resources related to scaffolding (n=4), silica dust (n=4), supporting vulnerable workers (n=2) and general practical guidance on how to implement WHS regulations (n=3) in their workplace were also highlighted.

New legislation or codes of practices in Australia and internationally in relation to psychosocial hazards

Respondents highlighted the introduction of legislation and codes of practice related to managing psychosocial issues in the workplace (n=61). Other respondents highlighted there was a need for regulators across states and territories to harmonise their WHS legislation to assist respondents navigate and comply with these regulations (n=4).

New technology that has the potential to prevent harm

There were a range of technologies respondents identified being implemented in their workplace to improve WHS outcomes, including:

- **Digital Solutions / Real-Time Reporting (n=11):** The most common technology being implemented in workplaces were digital solutions to assist workers report on and monitor WHS activity in the workplace efficiently and in real-time. This includes complaint management and incident reporting, tracking and response systems. These technologies were particularly highlighted in the construction industry.

- **Wearables / Real-time monitoring (n=8):** Respondents also noted the use of wearable technology and real-time monitoring devices. Respondents identified these technologies were being used to monitor the safety of workers in a range of settings, including those that work in remote environments, to monitor dust exposure, air quality and heat stress.

- **Mobile or Desktop Applications (n=6):** The use of mobile applications was also highlighted, particularly in reporting WHS issues, psychosocial hazards or during site visits and inspections. For office-based workers, some respondents highlighted new desktop activity tracking technology, which has pop-ups to remind workers to take screen breaks and if their daily usage exceeds the recommended levels.

- **Automation of repetitive or manual processes (n=4):** Some respondents noted they had implemented automated machinery or systems to minimise human-plant contact or manual handling.

Discussion

The results of the Survey provide a range of insights to inform further targeted actions for organisations and regulators to improve WHS in Australian workplaces.

Harms to worker

Increasing psychosocial harm

The PJQI (Butterworth et al., 2011) is a published and validated survey instrument that was used in the Survey to understand the proportion of respondents that were working in roles considered to be of poor psychosocial quality. Overall, our study finds that 16.3% of respondents were working in roles that met this criterion. This result is higher than previous studies which have used this measure, including Collie et al. (2016), which observed 12.7% and Butterworth et al. (2011), which observed 7.3%. This result is consistent with other findings from the Survey, where respondents expressed concerns about the emergence and management of psychosocial risk in their workplace.

Workers also are experiencing high and/or increasing work demands, burnout, stress and poor mental health; e.g., almost two-thirds of respondents reported feeling drained by their work. This issue appears to be driven by an increasing normalisation of chronic understaffing across organisations, along with limited acknowledgement or little action amongst their leaders to manage the issue.

Working from home and flexible working arrangements require greater WHS consideration and oversight

It appears the transition to working from home and flexible working arrangements is contributing to the overall increase of psychosocial harm, where more workers are working in isolated environments, and due to desktop monitoring software, can feel pressure to work longer or may find it hard to switch off outside of work hours. It is also noted that these environments have less WHS oversight and control. Whilst there is an acknowledgement of increased awareness of, and practices to reduce psychosocial risk (particularly since the introduction of the new WHS model regulations and code of practice on psychosocial hazards), more work is needed by organisations to establish effective harm prevention systems.

Harassment and bullying are frequent and not managed well

Almost two-thirds of respondents indicated they had experienced a form of harassment in the workplace at least in the last year, the most frequent being verbal and psychological harassment. More than two-thirds of respondents indicated they had experienced bullying in

the workplace in the past year. Respondents were critical of their organisation's approach to tackling this issue, noting little action is usually taken even after the harassment had been reported.

WHS practices in the workplace

The Survey considered four measures to assess the adequacy of mitigating frameworks put in place by workplaces to prevent harm: 1) commitment to WHS (designed by the Centre), 2) systems, policies and procedures (integrated from the OHSVM, Lay et al., 2015), 3) awareness of the workers in respect to their and their employer's rights and responsibilities (OHSVM) and 4) empowerment of the workers to participate in prevention (OHSVM). A quarter of respondents were found to show inadequate levels of WHS awareness (25.4%), and more than half were found to show inadequate levels of WHS empowerment (54.3%). Half of the respondents reported inadequate WHS systems, policies and procedures in their workplace, and similar proportions were found in regard to commitment to WHS, with half of respondents feeling that their leaders do not demonstrate a commitment to healthy work and support a strong safety culture.

These numbers form the baseline from which will be compared results from future iterations of this Survey, which will provide for the first time an accurate and dynamic measure of the WHS landscape in Australia.

Barriers to good WHS practice in Australian workplaces.

Limited time and resources

When it comes to barriers to improving WHS, our analysis indicates that safety practices in Australian workplaces are constrained primarily by limited time and resources. The increasingly tight labour markets being experienced in many workplaces are resulting in high levels of staff fatigue and turnover - particularly in the face of increasing work demands and pressure in the post-COVID-19 era. The increased turnover has also resulted in the entry of younger and more inexperienced workers, who did not have adequate knowledge and training to undertake their work safely.

Lack of commitment from leadership

It is clear that a strong commitment towards, and communication about WHS from organisational leaders is considered to be a key enabling factor for improving WHS outcomes. Many respondents shared the view that their leaders did not prioritise, or were not aware of WHS in their organisation. More commitment to WHS from leadership was also highlighted by respondents as the primary enabler leading to better WHS in the workplace. Beyond

leadership, many respondents called for the establishment of better WHS oversight and governance systems and continuous improvement and knowledge-building processes to learn from incident causes and responses.

Confusion about the value proposition to quality WHS management

The results suggest organisations are likely to be motivated to improve WHS if its value proposition were clearer for workers and/or their leaders. Currently, it appears WHS is undervalued in the workplace, and further improvements could be achieved if safety requirements were easier to understand or if the financial or reputational benefits were more demonstrable for organisations.

Lack of knowledge and dissemination to support WHS across organisations

Beyond improvements to the underlying value proposition, continued and improved information flows from regulators to organisations are highlighted as key enablers to improve safety in workplaces. Results indicate that increased knowledge generation and dissemination about WHS practices is needed, both by regulators and within organisations.

Respondents called for better dissemination of evidence from the regulator, lessons learned, and best practice nationally and internationally to improve WHS systems, processes and policies relevant to their workplace. This was primarily evidenced through respondents' acknowledgement of the benefit and value of legislation, model regulations, codes of practice, guidelines and resources to address emerging WHS risks. In particular, a number of respondents cited the psychosocial code of practice as a key resource to assist them in managing psychosocial hazards in the workplace. Organisations need further assistance from regulators in navigating the complexity and specificity of WHS risk relevant to their workplace. This suggests a need for the development of more practical guidance to assist respondents navigate and comply with regulations.

In the spotlight

Call for a re-prioritisation of WHS in Healthcare

Workers from the Healthcare sector felt more exposed to hazards, including harassment, sexual harassment and bullying, than in other industries. Almost one out of two Healthcare workers experienced a form of harassment or bullying on a monthly basis, and there are indications that sexual harassment is also more predominant in this industry.

Healthcare workers also felt more burnout in comparison to workers from other industries. A possible explanation might be found in the experience these workers have with their jobs, as

they felt less job control, less fairness with respect to effort-reward, and more job demand than workers in other industries.

Healthcare was not depicted as a great place to work from a WHS perspective: Healthcare workers felt less aware of their and their employer's WHS rights and responsibilities and less empowered to participate in WHS discussions than their colleagues in other industries. Workplaces in Healthcare were also perceived as being less prepared to manage WHS and less committed to it than workplaces in other sectors.

The lack of time and resources, but also the de-prioritisation of WHS, were the main two barriers to good WHS barriers noted by Healthcare workers. In contrast, risk assessment, active management and training and education were cited as the current main drivers for good WHS practice in Healthcare workplaces. Finally, many Healthcare workers shared the view that the potential impact of bad WHS practices on business reputation and a re-valuation of WHS by workers could potentially be effective in reprioritising WHS in their workplace.

Workers and management share different WHS experiences

Workers felt more exposed to hazards than managers or executives and also reported more frequent experiences of bullying. Managers, in contrast, felt more burnout and a higher level of job demand.

The workers' view of WHS practices in the workplace was generally different to the view of managers and executives. Workers felt less aware of their and their employer's WHS rights and responsibilities and less empowered to participate in WHS. The limited understanding of the WHS obligations is, in fact, one of the main barriers to good WHS practice identified by workers, less so by higher management. Workers also perceived their workplaces as being less prepared to manage WHS and less committed to it than it is perceived by the managers and executives. Interestingly, the workers' main potential driver for better WHS prioritisation in their workplace was if it was more valued by workers and, to a lesser degree, if it could impact the reputation of the business, a view shared by managers and HSRs. Executives were less motivated by the potential link between WHS and business reputation and more of the view that WHS could be reprioritised if it became more financially rewarding or more valued by customers and investors.

Small businesses vs. large organisations

Workers from small businesses reported more frequent experiences of harassment and bullying in the workplace, with seven out of ten workers experiencing a form of harassment in the last twelve months. Workers from small businesses felt lower levels of job security which is a known trigger for psychosocial harm, felt less aware of their and their employer's WHS

rights and responsibilities, and were less empowered to participate in WHS. In contrast, workers from large organisations experienced more burnout and more job demand.

Different barriers to good WHS practice were flagged depending on the size of the business. Workers from small businesses highlighted the limited understanding of the WHS obligations, and the limited knowledge of WHS risks and hazards in the workplace as the two most important barriers. They believed that WHS could be reprioritised in their workplace if it was more financially rewarding or more valued by customers and investors. Workers from large organisations felt less commitment from their workplace to WHS in comparison to workers from small businesses. The lack of time and resources, but also the de-prioritisation of WHS, were cited as the main barriers to good WHS practice by workers from large organisations. They also expressed the view that one of the main potential drivers to making WHS more of a priority at their workplace was if it impacted the business's reputation.

At risk workers

Older workers felt more exposed to hazards than younger workers, a result potentially related to the greater awareness of WHS by older workers. Both generations were exposed to factors that are known to trigger psychosocial harm: while older workers experienced a higher level of job demand, young workers felt less secure about their job, less control over it, and less effort-reward fairness.

Younger workers experienced more frequent instances of harassment and bullying in the workplace, yet middle-aged workers seemed to be more likely to experience a sexual form of harassment.

Female-identified workers and diverse-identified workers (CALD, First Nations Australians, migrants, LGBTQIA+ or disability) reported more frequent experiences of harassment and sexual harassment. About one out of five female-identified workers and diverse-identified workers experienced sexual harassment in the last twelve months, as compared to one out of ten for male-identified workers and workers not identifying from a diverse community.

Diverse-identified workers (CALD, First Nations Australians, migrants, LGBTQIA+ or disability) also reported more frequent experiences of bullying.

Young workers and diverse-identified workers (CALD, First Nations Australians, migrants, LGBTQIA+ or disability) felt less aware of their and their employer's WHS rights and responsibilities, as well as less empowered to participate in WHS.

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Appendices

Appendix A: National RADAR Survey Instrument

Intent	Question	Response	Response type
1. Role	1. Which of the following best describes your role in the workplace? Please select all that apply.	1. Worker 2. Volunteer 3. Supervisor/Manager 4. Executive/Board member 5. Health and Safety Representative 6. Sole trader/Freelancer 7. Other, please specify [free input]	• Mandatory • Select all that apply • Free input option
2. Employment	2. Which of these categories best describes your current employment?	1. Permanent or ongoing 2. Fixed-term 3. Casual 4. Labour hire 5. Self-employed 6. Contractor 7. Gig worker 8. Other (please specify) [free input]	• Optional • Select one • Free input option
3. State	3. In which state or territory do you work? Please select all that apply.	1. New South Wales 2. Victoria 3. Australian Capital Territory 4. Northern Territory 5. Queensland 6. South Australia 7. Tasmania 8. Western Australia 9. Outside Australia [closure statement, if only selection]	• Mandatory • Select all that apply
4. Industry	4. In which industry do you work?	1. Agriculture, Forestry and Fishing 2. Mining 3. Manufacturing 4. Electricity, Gas, Water and Waste Services 5. Construction 6. Wholesale Trade 7. Retail Trade 8. Accommodation and Food Services 9. Transport, Postal and Warehousing 10. Information Media and Telecommunications 11. Financial and Insurance Services 12. Rental, Hiring and Real Estate Services 13. Professional, Scientific and Technical Services 14. Administrative and Support Services	• Mandatory • Select one • Drop down menu

Intent	Question	Response	Response type
		15. Public Administration and Safety 16. Education and Training 17. Health Care and Social Assistance 18. Arts and Recreation Services 19. Other [free format text if available?]	
5. Business Size	[*skip if Demographic: role = sole trader*] **5. How many people work in your organisation*?** *the main organisation responsible for your workplace	1. 1-4 workers 2. 5-19 workers 3. 20-199 workers 4. 200 or more workers	• Mandatory • Select one
6. Employer type	[*skip if Demographic: role = sole trader*] **6. Which of the following best describes the organisation* you work for?** *the main organisation responsible for your workplace	1. Private Company 2. Public Company 3. Government 4. Non-Government organisation/Not for Profit 5. Other - please specify [free input]	• Mandatory • Select one
7. Working structure	**7. What best describes where you work?** *the main organisation responsible for your workplace Please select all that apply.	1. I only work at my workplace 2. I only work at home 3. I work flexibly (e.g. home and office) 4. I travel between multiple worksites 5. I work in my vehicle 6. Other - please specify [free input]	• Mandatory • Select one
8. Exposure to hazards	This section asks about the kinds of health and safety hazards you might be exposed to in your job. For each item below, please rate how often you do the stated task or are exposed to the stated condition. **8.1. In your job, how often do you…?** i. (OHSVM) Manually lift, carry, or push items heavier than 20 kg at least 10 times a day ii. (OHSVM) Do repetitive movements with your hands or wrists (packing, sorting, assembling, cleaning, pulling, pushing, and typing) for at least 3 hours during the day. iii. (OVHSM) Perform work tasks, or use work methods that you are not familiar with. iv. (OHSVM) Interact with hazardous substances such as chemicals, flammable liquids, and gases. v. (OHSVM) Work in a bent, twisted, or awkward posture. vi. (OHSVM) Work at a height that is 2 metres or more above the ground or floor. vii. (OHSVM) Work in noise levels that are so high that you have to raise your voice when talking to people less than 1 metre away. viii. (OHSVM) Have to stand for more than 2 hours in a row.	1. Never 2. Once a year 3. Every 6 months 4. Every 3 months 5. Every month 6. Every week 7. Every day 9. Don't know/Not applicable	• Mandatory • Select one
	8.2 In your job, how often have you…? i. (OHSVM) Experienced bullying at work (repeated and unreasonable behaviour including, abusive or offensive language or comments; belittling or humiliating comments, practical jokes or initiation; unjustified criticism or complaints)? ii. (OHSVM) Experienced harassment at work?	1. Never 2. Once a year 3. Every 6 months 4. Every 3 months 5. Every month 6. Every week 7. Every day 8. Don't know/Not applicable	• Mandatory • Select one

Intent	Question	Response	Response type
	[SKIP if selected 1 or 8 for Q8.2.ii] **8.2.1 Would you please identify the type of harassment that you have experience?** *Please select all that apply*	1. Verbal (e.g. abusive or offensive language or comments) 2. Physical (e.g. hitting, kicking, pushing) 3. Sexual (e.g. unwelcome/inappropriate physical contact, sexual jokes, sending sexual messages) 4. Psychological (e.g. making impossible demands, imposing unreasonable deadlines) 5. Discrimination (e.g. discrimination on race, culture, education, economic background) 6. Prefer not to say 7. Other	• Mandatory • Select all that apply
9. Job quality	This section asks about psychosocial quality of your job. **9.1 For each item below, please indicate how much you agree or disagree with the statement.** i. (PJQI_Job demand & complexity) My job is more stressful than I had ever imagined ii. (PJQI_ Job demand & complexity) My job is complex and difficult iii. (Additional job demand) My job is demanding and fast-paced iv. (PJQI_ Job demand & complexity) My job often requires me to learn new skills v. (PJQI_ Job demand & complexity) I use many of my skills and abilities at my current job vi. (Additional job demand) I regularly do work outside of my work time vii. (PJQI_Job control) I have a lot of freedom to decide how I do my own work viii. (PJQI_Job control) I have a lot of say about what happens on my job ix. (PJQI_Job control) I have a lot of freedom to decide when I do my work	1. Strongly disagree 2. Disagree 3. Somewhat disagree 4. Neither agree nor disagree 5. Somewhat agree 6. Agree 7. Strongly agree 9. Don't know/Not applicable	• Mandatory • Select one
	9.2 For each item below, please indicate how much you agree or disagree with the statement. i. (PJQI_Job security) I have a secure future in my job ii. (PJQI_Job security) The place I work for will still be in business 5 years from now iii. (PJQI_Job security) I worry about the future of my job iv. (PJQI_Effort reward fairness) I get paid fairly for the things I do in my job v. (Burnout) I feel drained by my work vi. (Burnout) I worry about work when I am not working vii. (Burnout) I find it hard to disconnect from work	1. Strongly disagree 2. Disagree 3. Somewhat disagree 4. Neither agree nor disagree 5. Somewhat agree 6. Agree 7. Strongly agree 9. Don't know/Not applicable	• Mandatory • Select one
10. Work health and safety awareness	This section explores your awareness of work health and safety (e.g. hazards, the rights and responsibilities of both employees and employers). **10.1 For each item below, please indicate how much you agree or disagree with the statement.**	1. Strongly disagree 2. disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree 9. Don't know/Not applicable	• Mandatory • Select one

Intent	Question	Response	Response type
	At my workplace… i. (OHVSM) I am clear about my rights and responsibilities in relation to workplace health and safety ii. (OHVSM) I am clear about my employer's rights and responsibilities in relation to workplace health and safety iii. (OHVSM) I know how to perform my job in a safe manner iv. (OHVSM) If I became aware of a health or safety hazard at my workplace, I know who (at my workplace) I would report it to v. (OHVSM) I have the knowledge to assist in responding to any health and safety concerns at my workplace vi. (OHVSM) I know what the necessary precautions are that I should take while doing my job.		
11. Participation in work health and safety	This section explores your ability to ask questions about, and participate in, health and safety at work. **11.1 For each item below, please indicate how much you agree or disagree with the statement.** At my workplace…. i. (OHSVM) I feel free to voice concerns or make suggestions about workplace health and safety at my job ii. (OHSVM) If I notice a workplace hazard, I would point it out to management iii. (OHSVM) I know that I can stop work if I think something is unsafe and management will not give me a hard time iv. (OHSVM) If my work environment was unsafe I would not say anything, and hope that the situation eventually improves v. (OHSVM) I have enough time to complete my work tasks safely vi. I have a good working relationship with my manager.	1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree 6. Don't know/Not applicable	• Mandatory • Select one
12. Workplace policies and procedures	This section asks about the kinds of policies and systems in place to make the workplace safe. **12.1 For each item below, please indicate how much you agree or disagree with the statement.** At my workplace… i. (OHSVM) Everyone receives the necessary health and safety training when starting a job, changing jobs, or using new techniques ii. (OHVSM) There is regular communication between workers and management about health and safety issues iii. (OHSVM) Systems are in-place to identify, prevent and deal with hazards at work iv. (OHVSM) There is an active and effective health and safety committee, and/or health and safety representative	1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree 6. Don't know/Not applicable	• Mandatory • Select one

Intent	Question	Response	Response type
	v. (OHSVM) Incidents and accidents are investigated quickly in order to improve workplace health and safety vi. (OHSVM) Communication about workplace health and safety procedures is done in a way that I can understand vii. (OHSVM) Considers health and safety at least as important as production and quality in the way work is done		
13. Organisational Commitment and practice	This section asks about your organisations WHS commitment and practice. **13.1 For each item below, please indicate how much you agree or disagree with the statement.** At my workplace… i. Supervisors are supported to make decisions to aid the physical and psychological safety of all workers ii. Leaders demonstrate a commitment to healthy work creating a strong safety culture iii. Systems are in-place to proactively manage hazards that could affect my mental health iv. WHS is a priority when new technology is introduced, including assessing and managing risks; consulting and communicating with workers; and conducting training in the safe use v. I have confidence that my privacy and confidentiality is protected when new technology is introduced vi. Systems are in place to manage WHS in support of flexible work practices and flexible work environments	1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree 6. Don't know/Not applicable	• Mandatory • Select one
14. Barriers and enablers	**14.1 What stands in the way of good WHS practice at your work?**	1. Limited understanding of the WHS obligations 2. It's too complex. I don't know where to start. 3. Limited knowledge of the specific risks and hazards present in the workplace 4. Cost implications 5. Time constraints or lack of resources. 6. No expertise to manage WHS. 7. Prioritising items believed to be more important over work health and safety. 8. Other [free format field] 9. I don't know	• Mandatory • Select all that apply
	14.2 What drives good WHS practice at your work?	1. Return on investment, safe business is good business 2. Strong leadership and commitment 3. Adequate resources including people and safety equipment 4. Risk assessment and active management	• Mandatory • Select all that apply

Intent	Question	Response	Response type
		5. Communication and consultation with all workers 6. Training and education 7. Good reporting systems 8. Investigation and mitigating action post incident 9. Other [free format field] 10. I don't know	
	14.3 What would make WHS more of a priority at your work?	1. Valued by workers 2. Valued by customers and investors 3. Financially rewarding 4. Simpler to understand 5. Risk of getting caught by the regulator 6. Risk of someone getting seriously hurt 7. Impact on businesses reputation 8. Other [free format field] 9. I don't know	• Mandatory • Select all that apply
15. Changes	**Q15.1 In the past six months, have you experienced or witnessed any new or emerging health and safety issues?** Please select all that apply.	1. Issues from new or emerging ways of working or types of work 2. Issues from new or emerging technologies or workplace innovations 3. Issues from new or emerging behaviours, attitudes, or practices (either yours or other people in your workplace) 4. Other new or emerging issues 5. No	• Select all that apply • Mandatory
	[Skip if types of work have not been ticked in Q15.1] **Q15.1.A Please explain in detail the issues from new or emerging ways of working or types of work you have identified.**		• Free input • Mandatory
	[Skip if technologies have not been ticked in Q15.1] **15.1.B Please explain in detail the issues from new or emerging technologies or workplace innovations you have identified.**		• Free input • Mandatory
	[Skip if behaviours have not been ticked in Q15.1] **15.1.C Please explain in detail the issues from new or emerging behaviours, attitudes, or practices (either yours or other people in your workplace) you have identified.**		• Free input • Mandatory
	[Skip if Other have not been ticked in Q15.1] **15.1.D Please explain in detail the other new or emerging issues you have identified.**		• Free input • Mandatory
16. Solutions	**16.1 In the past six months, have you seen anything new that can improve health and safety in your workplace?** Please select all that apply.	1. New WHS guides, resources, or materials 2. New legislation or codes of practices in Australia or internationally	• Select all that apply • Mandatory

Intent	Question	Response	Response type
		3. New technology that has the potential to prevent harm 4. Other new solutions that have the potential to prevent harm 5. No	
	[Skip if resources and materials has not been ticked in Q16.1] **16.1.A Please explain in detail the new WHS resources or materials you have identified.**		• Free input
	[Skip if legislation has not been ticked in Q16.2] **16.1.B Please explain in detail the new legislation or codes of practices you have identified.**		• Free input
	[Skip if technology has not been ticked in Q16.3] **16.1.C Please explain in detail the other preventive solutions you have identified.**		• Free input
	[Skip if Other has not been ticked in Q16.4] **16.1.D Please explain in detail the new technology you have identified.**		• Free input
17. General observations	**17. Is there anything else you have seen in regard to work health and safety that you would like to flag?**		• Free input
18. Gender	**18. What gender do you identify as?**	1. Woman/Female 2. Man/Male 3. Non-binary 4. I use another term [Free input] 5. I prefer not to say	• Optional • Select one • Free input
19. Age	**19. What is your age group?**	1. 18 to 24 2. 25 to 34 3. 35 to 44 4. 45 to 54 5. 55 to 64 6. 65 or over 7. I prefer not to say	• Optional • Select one
20. Education	**20. What is your highest level of education?**	1. Year 11 or below 2. Year 12 3. Trade Certificate/ Certificate III/IV 4. Advanced Diploma/Diploma 5. Bachelor's degree 6. Graduate Diploma/Graduate Certificate 7. Postgraduate Degree 8. I prefer not to say	• Optional • Select one
21. Diversity	**21. Do you identify as being a part of any of the following communities?**	1. LGBTQIA+	• Optional

Intent	Question	Response	Response type
	Please select all that apply.	2. Aboriginal or Torres Strait Islander 3. Culturally and/or linguistically diverse (CALD) 4. Migrant or temporary resident 5. Have a disability 6. None of the above 7. I prefer not to say	• Select all that apply
22. Language	22. Which language did you first speak as a child?	1. English 2. Other - please specify [free input] 3. I prefer not to say	• Optional • Select one

Appendix B: Survey Distribution Strategy

Engagement channels

The primary consideration for designing the Outreach Plan for survey distribution was the target audience, being people working in Australia over the age of 18.

Granted that, we needed to cast a wide net through three key channel areas:

- Owned channels – controlled directly by the Centre for Work Health (the Centre) and Safety that incur no cost.
- Paid channels – space where budget is spent to garner targeted reach.
- Earned channels – controlled by external parties with their own distinct audience groups, considered as network distribution.

Owned channels

The channels owned by the Centre for Work Health and Safety include:

- Social media accounts – Facebook, LinkedIn, Twitter, Instagram
- The Centre's website
- Email contact list

Social media

Distribution through social media arguably played a moderate role in participant numbers.

Tracking was not set up, so it is difficult to attribute click-throughs to survey completions. When considering click-throughs in the table below, attrition and bounces of users needs to be assumed to some level.

Social media - organic				
Channel	No. of posts	Reach	Clicks to survey	CTR[2]
Facebook	4	1839	16	0.87%
LinkedIn	4	3140	117	3.73%
Twitter	4	908	23	2.53%
Instagram	3		No data	
Total	15	5887	156	2.65%

LinkedIn proved to be the highest-performing channel in reach, clicks and click-through rate (CTR), largely due to a more engaged audience on that channel.

Instagram data could not be collected as the Centre's social monitoring platform (Sprout Social) does not capture Instagram Story engagements, nor does the Instagram platform itself.

Other owned channels

The other owned channels (website, email contact list), denote an audience that have shown a direct interest in the Centre.

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[2] CTR = Click-Through Rate, which is calculated by Clicks / Reach x 100

There are some setbacks in what can be reported, and therefore there is no way of determining the success of the channels in generating interested users.

Other owned channels				
Channel	No. of publications	Reach	Clicks to survey	CTR
Contact inbox	2[3]	441	No data	
Centre for WHS website	1[4]	201	No data	
Total	**3**	**642**	**0**	**0.00%**

Due to the Centre using Outlook as an email distribution platform rather than an EDM platform, data on open rates and clicks cannot be collected.

The Centre's website does not have tracking event tags set up in Google Analytics, meaning that clicks cannot be tracked.

Paid channels

Facebook ads were the only advertising channel chosen to promote the survey. This was partly due to it being a learning exercise for future iterations of the survey.

General targeting was applied first (Australians between the ages of 18 and 64). And then a targeted effort was applied when early demographic data was filtered back from the survey results to help prompt an increase in responses from lower-represented age groups (18-24, 55-64) and locations (NT, QLD, SA, TAS, WA).

Paid advertising						
Channel	No. of ads	Reach	Clicks to survey	CTR	CPC	Total cost
Facebook	11	50526	413	0.88%	$1.63	$672.33

There were issues with ads being approved through Facebook, where some ads with similar copy and the same image were rejected multiple times. This impacted the distribution to audiences in NT, TAS and WA.

Reach

The highest reach was generated from the generic ad and a Queensland ad targeted at people aged 55-64, achieving reach of 15,575 and 15,928 users, respectively.

It should be noted that the former had its own unique budget, so achieved the reach with a $165.57 spend, and the latter was heavily favoured by Facebook within the campaign spend, so was eventually paused to ensure better distribution of spend.

Link clicks

The highest-performing ad in terms of results was in Queensland, targeted at people aged 55-64, with 148 link clicks.

The best CTR was in the Northern Territory targeted at people aged 55-64 at 1.39%; it should be noted that it was off a low base, with 14 clicks from 1008 users.

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[3] Contact inbox publications refer to emails sent.
[4] Website publications refer to number of web pages; child pages were not considered in this analysis as they did not link directly to the survey.

The best cost per click (CPC) was in Tasmania, targeted at people aged 18-24 at $0.85; it should be noted that it was off a low base, with the ad only served to 569 users.

Earned channels

The survey was distributed across a number of earned channels, including NSW government-owned channels (social media, newsletters, website) and publication in media (online articles, radio).

Earned distribution				
Channel	No. of publications	Reach	Clicks to survey	CTR
SafeWork Website Blog	1	8	1	12.50%
BRD Secretary Newsletter	1	488	6	1.23%
Service NSW CEO Newsletter	1	4,275	12	0.28%
SafeWork WRAP Newsletter	1	5,927	20	0.34%
SafeWork NSW FB page post	1	731	11	1.50%
NSW Government FB page post	1	16,677	319	1.91%
SafeWork NSW LinkedIn page post	1	1,238	22	1.78%
NSW Government LinkedIn page post	1	16,308	106	0.65%
Mirage News (online article)	1	No data		
AAP Photos (online article)	1	No data		
2BS – Bathurst (radio interview)	1	No data		
The Echo (online article)	1	No data		
Total	12	45652	497	1.09%

NSW Government channels

The distribution through other NSW Government channels happened quite late in the promotional period due to the scheduling capacity of the respective government teams. For the most part, this equated to a low reach and click-through.

The support of the NSW Government social media channels had quite an impact with a high reach of over 32,000 across Facebook and LinkedIn, and a particularly good click-through rate on Facebook at 1.91%.

Placement in the Dept of Customer Service EDMs may have caused a lower click rate, where the survey was mentioned near the bottom of each newsletter. This placement is particularly underwhelming in publications with low open rates (see reach).

Media

Distribution through media channels was successful in acquiring four pieces of coverage in a short space of time.

Unfortunately, there is no tracked data available to determine the success of these pieces of coverage correlating to click-throughs or active searches.

It should be noted that there was a spike on the WHS Survey pageviews on the Centre website on the 16 and 17 January, when the AAP online article was published and 2BS radio interview was conducted; these two days accounted for 30.85% of pageviews.

Network distribution

While we are unable to report on distribution through direct contacts and networks held by the Centre, it should be noted that the survey was emailed out to a number of individuals who were asked to forward the survey invite to their business networks.

These networks included other State and Territory Inspectorates, and large companies like Ingham's Chicken.

The prospect of distribution through these networks equating to survey starts and completions would need to be considered against the demographic data collected in the survey.

Appendix C: Occupational Health and Safety Vulnerability Measure (OHSVM)

Exposure to Hazards

How often do you:
1. Have to manually lift, carry, or push items heavier than 20 kg at least 10 times a day?
2. Have to do repetitive movements with your hands or wrists (packing, sorting, assembling, cleaning, pulling, pushing, typing) for at least 3 hr during the day?
3. Have to perform work tasks, or use work methods that you are not familiar with?
4. Interact with hazardous substances such as chemicals, flammable liquids, and gases?
5. Have to work in a bent, twisted, or awkward posture?
6. Work at a height that is 2 m or more above the ground or floor?
7. Work in noise levels that are so high that you have to raise your voice when talking to people less than 1 m away?
8. Have you been bullied or harassed at work?
9. Have to stand for more than 2 hr in a row?

Policies and Procedures

At my workplace:
1. Everyone receives the necessary workplace health and safety training when starting a job, changing jobs, or using new techniques.
2. There is regular communication between employees and management about safety issues.
3. Systems are in place to identify, prevent, and deal with hazards at work.
4. Workplace health and safety is considered to be at least as importance as production and quality.
5. There is an active and effective health and safety committee, and/or health and safety representative.
6. Incidents and accidents are investigated quickly in order to improve workplace health and safety.
7. Communication about workplace health and safety procedures is done in a way I can understand.

Awareness

At my workplace:
1. I am clear about my rights and responsibilities in relation to workplace health and safety.
2. I am clear about my employer's rights and responsibilities in relation to workplace health and safety.
3. I know how to perform my job in a safe manner.
4. If I became aware of a health or safety hazard at my workplace, I know who (at my workplace) I would report it to.
5. I have the knowledge to assist in responding to any health and safety concerns at my workplace.
6. I know what the necessary precautions are that I should take while doing my job.

Empowerment

1. I feel free to voice concerns or make suggestions about workplace health and safety at my job.
2. If I notice a workplace hazard, I would point it out to management.
3. I know that I can stop work if I think something is unsafe and management will not give me a hard time.
4. If my work environment was unsafe, I would not say anything and hope that the situation eventually improves. (reverse scored)
5. I have enough time to complete my work tasks safety.

Appendix D: Psychosocial Job Quality Measures (PJQI)

Job demands and complexity
1. My job is more stressful than I had ever imagined. 2. My job is complex and difficult. 3. My job often requires me to learn new skills. 4. I use many of my skills and abilities in my current job.

Job control
1. I have a lot of freedom to decide how I do my own work. 2. I have a lot of say about what happens on my job. 3. I have a lot of freedom to decide when I do my work.

Job security
1. I have a secure future in my job. 2. The company I work for will still be in business 5 years from now. 3. I worry about the future of my job.

Effort reward fairness
1. I get paid fairly for the things I do in my job

Appendix E: Statistical reporting

Table 1: Frequency distributions for high job demand, low job control, low job security, and low effort reward fairness (as defined by Butterworth et al. 2011), by selected demographic and workplace characteristics.

	High job demands		Low job control		Low job security		Low effort reward	
	n	%	n	%	n	%	n	%
Gender								
Male	107	22.2%	131	27.0%	180	37.2%	171	35.6%
Female	165	35.0%	131	27.8%	109	23.1%	163	34.5%
$X2$ test (df, N, X2 stat, p)	*(1, 954, 19.0, <.01)*		*(1, 958, 0.1, .83)*		*(1, 956, 22.5, <.01)*		*(1, 953, .1, .79)*	
Age group								
18-25	5	7.9%	32	50.8%	42	66.7%	37	58.7%
26-45	146	26.8%	114	20.8%	160	29.3%	154	28.4%
45+	130	34.1%	122	32.0%	102	26.8%	153	40.2%
$X2$ test (df, N, X2 stat, p)	*(2, 988, 19.7, <.01)*		*(2, 985, 33.6, <.01)*		*(2, 990, 41.6, <.01)*		*(2, 987, 30.6, <.01)*	
Education								
High school or less	14	10.1%	65	46.8%	79	56.8%	70	50.4%
Certificate/Diploma	76	30.0%	62	24.5%	76	30.0%	81	32.3%
Bachelor or more	189	32.1%	140	23.6%	145	24.5%	190	32.2%
$X2$ test (df, N, X2 stat, p)	*(2, 981, 27.2, <.01)*		*(2, 985, 31.7, <.01)*		*(2, 983, 55.4, <.01)*		*(2, 98.0, 17.3, <.01)*	
Diversity								
Yes	112	23.7%	121	25.6%	182	38.6%	167	35.5%
No	170	32.7%	149	28.4%	123	23.6%	180	34.6%
$X2$ test (df, N, X2 stat, p)	*(1, 992, 9.8, <.01)*		*(1, 996, .99, .35)*		*(1, 994, 26.2, <.01)*		*(1, 991, .1, .79)*	
Work characteristics								
Industry (top 5)								
Health care	88	56.8%	64	41.3%	32	20.6%	84	54.2%
Construction	32	27.8%	19	16.5%	36	31.3%	28	24.3%
Education	30	29.4%	22	21.6%	19	18.6%	34	33.3%
Manufacturing	16	19.3%	21	25.3%	29	34.9%	27	32.9%
Others	119	21.7%	148	26.8%	193	35.0%	179	32.6%
$X2$ test (df, N, X2 stat, p)	*(4, 1004, 77.1, <.01)*		*(4, 1008, 24.0, <.01)*		*(4, 1006, 19.9, <.01)*		*(4, 1003, 32.4, <.01)*	
Business size								
Large (200+)	168	39.9%	131	31.1%	76	18.1%	152	36.1%
Medium (20-199)	65	23.2%	74	26.4%	76	27.1%	98	35.1%
Small or less (<19)	43	16.8%	68	26.2%	138	53.5%	91	35.5%
$X2$ test (df, N, X2 stat, p)	*(2, 957, 47.5, <.01)*		*(2, 961, 2.7, .26)*		*(2, 959, 97.0, <.01)*		*(2, 986, .1, .96)*	
Work role								
Worker	133	27.0%	210	42.6%	160	32.5%	222	45.2%
Supervisor/Manager	73	36.7%	25	12.3%	58	28.9%	48	24.0%
Exec/Board member	10	20.8%	4	8.3%	13	27.1%	8	16.7%
Health &Safety Rep (HSR)	23	23.5%	22	22.4%	19	19.4%	33	33.7%
$X2$ test (df, N, X2 stat, p)	*(3, 838, 9.8, 0.04)*		*(3, 842, 123, <.01)*		*(3, 840, 9.1, .06)*		*(3, 837, 48.0, <.01)*	
Type of work contract								

	n	%	n	%	n	%	n	%
Full-time	213	33.2%	201	31.1%	154	23.9%	251	39.2%
Fixed term	19	18.6%	18	17.6%	32	31.4%	27	26.5%
Casual	26	24.3%	32	29.9%	52	48.6%	33	30.8%
Others	27	17.6%	23	15.0%	71	46.4%	41	26.8%
X2 test (df, N, X2 stat, p)	*(3, 1004, 21.6, <.01)*		*(3, 1008, 21.5, <.01)*		*(2, 1006, 47.8, <.01)*		*(2, 1003, 13.4, <.01)*	
Type of employer								
Government	126	44.8%	97	34.5%	40	14.2%	124	44.1%
Private	78	19.2%	127	31.0%	173	42.4%	148	36.5%
Public	32	23.5%	27	19.9%	36	26.5%	28	20.6%
Others	40	29.9%	22	16.4%	41	30.6%	41	30.6%
X2 test (df, N, X2 stat, p)	*(3, 957, 55.3, <.01)*		*(2, 961, 20.9, <.01)*		*(2, 959, 63.7, <.01)*		*(2, 956, 23.9, <.01)*	

Table 2: Frequency distributions of the OHSVM exposure to hazards, inadequate policies and procedure, inadequate awareness, inadequate empowerment and overall vulnerability.

OHS Vulnerability Measures	n	%
Exposed to hazard	596	58.6%
Inadequate policies and procedures (PP)	498	49.0%
Inadequate awareness (AW)	249	24.5%
Inadequate empowerment (EM)	552	54.3%
Overall vulnerability	**456**	**44.8%**

Table 3: Frequency distributions of the OHSVM exposure to hazards, inadequate policies and procedure, inadequate awareness, inadequate empowerment and overall vulnerability, by demographics and workplaces' characteristics.

	Exposed to hazard		Inadequate PP		Inadequate AW		Inadequate EM		Overall Vulnerability	
	n	%	n	%	n	%	n	%	n	%
Gender										
Male	280	56.6%	229	49.8%	131	27.9%	272	57.7%	202	42.0%
Female	283	60.0%	238	52.8%	108	23.4%	247	53.2%	225	48.2%
X2 test (df, N, X2 stat, p)	*(1, 967, 1.1, 0.29)*		*(1, 911, 0.8, 0.36)*		*(1, 931, 2.5, 0.11)*		*(1, 935, 1.9, 0.16)*		*(1, 948, 3.7, 0.06)*	
Age group										
18-25	25	39.7%	47	77.0%	44	69.8%	48	76.2%	21	33.3%
26-45	328	58.9%	243	46.8%	127	24.2%	306	57.5%	250	45.8%
45+	234	61.4%	200	54.9%	76	20.3%	188	50.3%	176	47.2%
X2 test (df, N, X2 stat, p)	*(2, 1001, 10.6, <.01)*		*(2, 944, 22.2, <.01)*		*(2, 963, 70.8, <.01)*		*(2, 969, 15.9, <.01)*		*(2, 982, 4.2, 0.12)*	
Education										
High school or less	73	52.5%	93	68.4%	74	54.4%	99	72.3%	56	40.6%
Certificate/Diploma	165	65.2%	124	50.2%	60	24.1%	138	54.8%	128	51.0%
Bachelor or more	342	56.8%	267	48.2%	111	19.4%	303	52.9%	256	43.7%
X2 test (df, N, X2 stat, p)	*(2, 994, 7.4, .024)*		*(2, 937, 18.1, <.01)*		*(2, 956, 70.9, <.01)*		*(2, 962, 17.1, <.01)*		*(2, 975, 5.1, 0.08)*	
Diversity										
Yes	289	61.2%	239	52.9%	150	32.9%	305	65.5%	236	51.1%
No	300	56.3%	253	51.0%	98	19.2%	241	47.5%	213	40.6%
X2 test (df, N, X2 stat, p)	*(1, 1005, 2.5, 0.11)*		*(1, 948, 0.3, 0.59)*		*(1, 967, 23.8, <.01)*		*(1, 973, 31.6, <.01)*		*(1, 986, 10.8, <.01)*	
Work characteristics										
Industry (top 5)										
Health care	117	75.5%	94	61.4%	37	24.5%	99	63.9%	94	61.4%
Construction	83	72.2%	42	38.2%	14	12.3%	47	41.2%	44	40.0%
Education	57	55.9%	48	51.1%	23	23.2%	58	57.4%	43	43.4%
Manufacturing	55	66.3%	33	40.2%	15	18.5%	54	65.1%	49	59.0%
Others	284	50.5%	281	53.9%	160	30.0%	294	55.3%	226	40.9%

X2 test (df, N, X2 stat, p)	*(4, 1017, 44.3, <.01)*		*(4, 960, 19.2, <.01)*		*(4, 979, 18.5, <.01)*		*(4, 985, 17.0, <.01)*		*(4, 998, 28.1, <.01)*
Business size									
Large (200+)	235	55.8%	211	52.5%	85	20.5%	206	49.4%	180	43.1%
Medium (20-199)	179	63.9%	137	50.7%	60	21.7%	145	52.7%	135	49.1%
Small or less (<19)	148	55.0%	128	52.7%	96	39.3%	177	71.4%	118	45.2%
X2 test (df, N, X2 stat, p)	*(2, 970, 5.8, 0.54)*		*(2, 915, .6, 0.88)*		*(2, 935, 31.9, <.01)*		*(2, 940, 32.4, <.01)*		*(2, 954, 2.4, 0.30)*
Work role									
Worker	295	59.8%	282	60.0%	174	36.0%	286	59.5%	231	47.6%
Supervisor/Manager	101	47.6%	81	42.4%	28	14.4%	91	46.4%	68	33.2%
Executive/Board member	27	56.3%	18	38.3%	6	13.3%	34	70.8%	25	52.1%
Health &Safety Rep (HRS)	72	73.5%	44	46.8%	12	12.6%	48	49.0%	53	55.2%
X2 test (df, N, X2 stat, p)	*(3, 851, 20.2, <.01)*		*(3, 802, 25.7, <.01)*		*(3, 819, 57.0, <.01)*		*(3, 823, 15.8, <.01)*		*(3, 834, 17.9, <.01)*
Type of work contract									
Full-time	348	53.1%	335	54.8%	150	23.8%	328	51.8%	259	40.2%
Fixed term	61	59.8%	45	45.9%	32	32.7%	65	65.7%	52	51.5%
Casual	75	70.1%	51	48.6%	32	30.8%	60	57.7%	58	55.2%
Others	112	73.2%	67	45.9%	35	23.8%	99	66.4%	87	58.8%
X2 test (df, N, X2 stat, p)	*(3, 1017, 27.4, <.01)*		*(3, 960, 6.1, .11)*		*(3, 979, 5.3, 0.15)*		*(3, 985, 15.0, <.01)*		*(3, 998, 23.2, <.01)*
Type of employer									
Government	178	63.3%	148	54.6%	60	21.8%	155	55.6%	141	50.5%
Private	234	55.8%	204	52.7%	121	30.3%	227	57.5%	166	40.8%
Public	79	58.1%	52	40.0%	27	20.3%	80	59.3%	62	46.3%
Others	71	53.0%	72	56.7%	33	26.0%	66	50.4%	64	47.8%
X2 test (df, N, X2 stat, p)	*(3, 970, 5.5, 0.14)*		*(3, 915, 9.4, 0.02)*		*(3, 935, 8.5, 0.03)*		*(3, 940, 2.6, 0.45)*		*(3, 954, 6.8, 0.78)*