

The New Zealand Workplace Barometer

Psychosocial safety climate and worker health –
findings from the 2019 NZ Workplace Barometer

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Executive Summary

The NZWB is designed to provide data to inform national, industry, and organisational approaches to psychosocial risk prevention at work, by identifying workplace indicators of mental health, stress-related conditions and some aspects of physical health. Psychosocial hazards and their associated risks include aspects of the design and management of work, and its social and organisational contexts, that have the potential to cause psychological or physical harm. Improvements to the psychosocial environment within which individuals work have been shown to produce a significant return on investment for organisations.

This report documents many important and valuable findings and relationships. Key among those were the beneficial features of a positive work environment including a thriving **psychosocial safety climate (PSC)**, perceptions of **management competence**, feelings of **inclusion** and perceptions of **organisational justice**. These four variables are the key resources identified in this report which organisations, industries and policy makers could focus on for developing and nurturing worker health and wellbeing.

Conversely, the toxic effects of **bullying** and **job insecurity** were prominent in their relationships with reduced **job satisfaction** and **engagement**, and increased **distress** and **intentions to leave**. Furthermore, the effects of job insecurity were stronger than those of bullying – employees who feel little security in their work may feel less loyalty and commitment and be more prepared to leave for better opportunities. These results strongly suggest that, wherever possible, organisations need to prioritise employee security and healthy workplace relationships.

In summary, this report suggests that, in the present COVID-19 environment, it is more important than ever for organisational leaders to prioritise organisational climate initiatives (e.g. PSC), and not lose sight of the importance of inclusion, justice and perceptions of management competence in order to best assure healthy work and positive organisational outcomes more generally.

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1. Introduction

Work-related psychosocial factors can be defined as the interactions among job content, work organisation, management, and other environmental and organisation conditions on the one hand, and people's characteristics and needs on the other (International Labour Organisation, 1986). These factors can positively or negatively influence the health, safety, general satisfaction and performance of a person during their working life. On the positive side, work can be uplifting, rewarding and enjoyable, while on the negative side it can be stressful, debilitating and damaging. Negative psychosocial factors (i.e. psychosocial hazards) include issues such as work overload, lack of autonomy, role conflict, and poor relationships at work, among others. Ongoing changes to the nature of work such as reduced job security and blurred work/non-work boundaries can also contribute to these potential hazards. The presence of psychosocial hazards may result in negative psychological, physical or social outcomes such as work-related stress, burnout, depression, or musculoskeletal disorders. Psychosocial hazards can also affect individuals differentially; what results in harm to one person may not harm another. Additionally, the effect of various psychosocial hazards can be cumulative, with effects building up over time.

These psychosocial hazards, and the risks they create, are recognised internationally as resulting in considerable direct and indirect costs to organisations and their employees. A 2014 European Union report estimated that psychosocial hazards cost as much as €25.4 billion per annum (European Agency for Safety and Health at Work (EU-OSHA), 2014). In the United Kingdom, work-related stress, depression or anxiety are responsible for 44% of cases of work-related ill health and 57% of working days lost in 2017/18 (HSE, 2018). Similarly, a 2015 survey of representative sample of Australians found that 35% of respondents report having a significant level of distress in their lives (Australian Psychological Society, 2015). Recent survey data from Europe also highlight that the awareness of psychosocial hazards is often low, and that in sectors attempting to manage them, the process of doing so is considered to be difficult (EU-OSHA, 2020).

The World Health Organisation (WHO) recognises the workplace as a priority area for health promotion with psychosocial hazards and associated risks playing a leading role in undermining workplace well-being and mental health. The WHO defines mental health as 'a state of well-being in which every individual realises their own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community' (WHO, 2018). Research indicates that New Zealand workers are vulnerable to psychosocial hazards, placing a considerable burden on the economic and social wellbeing of society (e.g. Bentley et al, 2009; 2012; Gardner et al., 2016; O'Driscoll et al., 2011). The need to address psychosocial hazards at work and reduce psychological harm for all workers is also a legal requirement.

The Health and Safety at Work Act 2015 ('HSWA'), requires organisations (or more specifically, persons conducting a business or undertaking, PCBU) to ensure the safety of their workers' mental health as well as their physical health, as far as is reasonably practicable, a statement reaffirmed in the NZ Government's Health and Safety at Work Strategy (2018-2028).

The intention of the New Zealand Workplace Barometer (NZWB) is to provide organisations with information to assess potential psychosocial hazards and to promote improvements in the psychosocial work environment. The survey provides a measure of an organisation's Psychosocial Safety Climate (PSC) as well as data on other psychosocial factors that impact on outcomes which are indicative of individual and organisational wellbeing and performance. Developed in collaboration with a WHO Collaborating Centre, the Asia-Pacific Centre for Work, Safety and Health, the NZWB provides the means to inform long-term national approaches to psychosocial risk through the provision of annual data on leading workplace indicators of mental health, stress-related conditions and some aspects of physical health. Organisations participating in the NZWB provide access to their employees for data collection in exchange for a report summarising the psychosocial hazards and associated risks within their organisation (where 50 or more people complete the survey). Organisations can then use that report as the basis from which to prioritise actions to improve their employee health and wellbeing with regular participation allowing them to understand and monitor their performance over time. The NZWB survey is administered annually, and this report presents results from the second year of conducting the survey following the inaugural survey in 2018. Financial support for the NZWB programme is currently provided by WorkSafe New Zealand.

1.1 Psychosocial hazards and risk

Psychosocial hazards can be defined as:

'those aspects of work design and the organisation and management of work, and their social and environmental contexts, which have the potential for causing psychosocial or physical harm'
(Cox & Griffiths, 1995).

Psychosocial risk refers to the potential for psychosocial hazards to cause harm (Leka, Van Wassenhove & Jain, 2015). Table 1 briefly describes the psychosocial factors that are recognised from a large body of research as those which if managed poorly may be hazardous to people's health. Importantly, while these ten factors have the potential to be a threat to health and safety, if managed well they can contribute to a positive and enriching working experience.

Table 1: A taxonomy of psychosocial hazards (Adapted from Leka and Cox, 2008, p2).

Content of work	
Job content	Lack of variety; fragmented or meaningless work; under use of skills
Workload and work pace	Work overload or under load; machine pacing; high levels of time pressure; continually subject to deadlines
Work schedule	Shift working; night shifts; inflexible work schedules; unpredictable hours; long or unsociable hours
Environment and equipment	Inadequate equipment availability; suitability or maintenance; poor environmental conditions such as lack of space; poor lighting; excessive noise
Context of work	
Control	Low participation in decision making; lack of control over workload; pacing; shift working, etc.
Organisational culture and function	Poor communication; lack of definition of, or agreement on, organisational objectives
Interpersonal relationships at work	Social or physical isolation; poor relationships with superiors; interpersonal conflict; lack of social support; bullying/harassment/violence
Role in the organisation	Role ambiguity; role conflict; and responsibility for people
Career development	Career stagnation and uncertainty; under promotion or over promotion; poor pay; job insecurity; low social value to work
Home–work interface	Conflicting demands of work and home; low support at home; dual career problems

1.2 Psychosocial Safety Climate

Psychosocial Safety Climate (PSC) is defined as the “policies, practices, and procedures for the protection of worker psychological health and safety” (Dollard & Bakker, 2010: p. 580). PSC is comprised of four key content domains (Figure 1): management commitment and support; priority for psychological health; organisational participation; and organisational communication (Dollard et al., 2017, Dollard & Bakker, 2010; Hall, Dollard, & Coward, 2010).



Figure 1: PSC Domains (Tuckey, 2016).

PSC is described as an important precursor of stress-related illness (Dollard & Bakker, 2010) determining job demands and resources, worker engagement and psychological health. Enhancing the PSC of organisations is therefore likely to reduce the presence of psychosocial risks (demands) and increase workplace resources, and subsequently reduce the risk of psychological ill-health among employees. The NZWB findings help direct and prioritise attention for where initiatives are needed to enhance an organisation's PSC.

1.3 Study aims

The aims of the NZWB are to:

- Assess the prevalence, nature and impact of psychosocial hazards in the New Zealand workplace.
- Identify the prevalence of psychosocial health problems within the workforce and their nature.
- Identify key workplace determinants of poor psychosocial health outcomes.
- Provide participating New Zealand organisations with data on psychosocial risk for their organisation that can be monitored over time and benchmarked against other organisations in their sector and nationally.

The NZWB research project was reviewed and approved by the Massey University Human Ethics Committee (Southern B).

2. Method

2.1 Participants

Data were collected between October and December 2019 from a sample of workers (N=1210) employed within 25 New Zealand organisations who were willing to distribute an online survey to their workforce.

2.2 Sample distribution

While the gold standard would be to report on a representative sample of NZ employees, we were wholly reliant on the generosity of participating organisations and their workers for collecting our data. The resulting convenience sample was comprised of organisations that were geographically dispersed and included those with employees spread across a number of locations as well as companies based on a single site. To consider the applicability of the NZWB results to the wider New Zealand working population, comparisons with Statistics New Zealand data sets were made (Table 2).

2.3 Demographic and employment data for the NZWB sample

The sample included approximately 50% females and 50% males, with 93% of participants working full-time, and in one (96%) paid job. The majority of respondents reported not belonging to a trade union (78%) and on average, had worked in their current organisation for 7.5 years (ranging from less than one month to a maximum of 55 years). Nearly a quarter (23%) of respondents reported working from home, or in a space away from their normal office, for one or more days per week. All but three of the organisations were 'large' (100 or more employees).

Table 2 below presents demographic data for the sample, with comparison to Statistics New Zealand data where applicable.

Table 2: Individual and employment characteristics as a percentage of overall sample

	NZWB 2019 (N=1210)	Stats NZ
Individual characteristics		
Gender¹	%	%
Men	50.2	52
Women	49.3	48
Gender diverse	0.5	6
Age (years)¹	%	%
18-25	7.5	14.2
26-34	22.2	20.7
35-54	49.7	41.7
55-64	18.2	17.0
65 or over	2.4	6.3
Ethnicity²	%	%
NZ European	72.1	70.9
Māori	7.3	14.0
Indian	3.7	5.1
Chinese	3.6	5.3
Tongan	0.3	1.3
Niuean	0.2	0.5
Other ²	19.3	1.2
Job characteristics		
Contract type	%	%
Permanent	93.7	
Fixed-term	4.7	
Contractor / Self-employed	0.7	
Casual	0.6	
Other	0.3	
Satisfaction with contract type	%	%
Satisfied	94.4	
Dissatisfied	5.6	
Working hours	%	%
Full-time	93.4	77.4
Part-time	5.9	22.6
Varies	0.7	
Usual hours worked per week	%	%
40-45	74	
Over 45	17	
0-39	9	

¹ Statistics New Zealand data are from the 2018 census (note slight differences in age categories with census data)

² Some respondents identified with more than one ethnic group.

	NZWB 2019 (N=1210)	Stats NZ
Satisfaction with usual hours worked per week	%	%
Happy with the current working hours arrangement	69	
Would prefer to work fewer hours	29	
Would prefer to work more hours	2	
Industry classification (ANZSIC level 1)³	%	%
Transport, Postal & Warehousing	22.0	3.0
Public administration and safety	21.3	0.2
Professional, Scientific and Technical Services	16.4	11.4
Information Media and Telecommunications	15.0	1.1
Electricity, Gas, Water and Waste Services	6.3	0.2
Construction	4.9	11.9
Agriculture, Forestry and Fishing	3.9	11.8
Health Care and Social Assistance	3.6	3.7
Retail Trade	4.0	5.1
Education and Training	1.8	1.6
Rental, Hiring and Real Estate Services	0.6	21.7
Manufacturing	0.2	3.9
Union membership⁴	%	%
Not a current union member	77.6	78.3
Current union member	22.4	18.5
Job title	%	%
Employee / Contractor (Non-managerial)	62.9	
Mid-level manager	15.4	
First-line supervisor / Team leader	13.0	
Senior manager	6.0	
Other	2.7	

³ Statistics New Zealand data from Business Demography Statistics – Enterprises by Industry 2019

⁴ Statistics New Zealand data from the Household Labour Force Survey, March 2020

2.4 Measures

The NZWB is a 20-minute online survey consisting of standardised, validated measures along with demographic and job information. These measures included scales related to the following dimensions:

Psychosocial Safety Climate

Psychosocial Safety Climate (PSC) was measured using the PSC-12, a survey questionnaire designed to capture the influence of senior management practices on the psychosocial health of employees (Hall et al., 2010). Organised around four domains, the 12 items invited responses about:

1. Management commitment and support for psychological health and safety (e.g. “senior management acts decisively when a concern about an employee’s psychological status is raised”)
2. Management prioritisation of psychological health and safety (e.g. “senior management considers employee psychological health to be as important as productivity”)
3. Employee participation in psychological health and safety (e.g. “employees are encouraged to become involved in psychological safety matters”)
4. Organisational communication with employees about psychosocial health and safety (e.g. “there is good communication about psychological safety issues which affect workers”)

Respondents provided responses on a five-point Likert scale ranging from “strongly disagree” to “strongly agree”.

The overall PSC score was calculated as the sum of the 12 items. The higher the overall PSC score, the more likely the PSC will be associated with favourable psychological and physical health and safety outcomes. Published benchmarks for PSC indicate that a score of 41 and over is a ‘best-practice standard’ threshold which is associated with a low-risk of employee job strain and depressive symptoms (Bailey, Dollard & Richards, 2015). A PSC score of 37 and below is associated with a higher psychosocial risk, and negative outcomes such as employee job strain and depressive symptoms.

Job demands and harm

Work-family and family-work conflict

Three statements asked respondents about the impact of work on family life (such as “I have to miss family activities due to the amount of time I must spend on work responsibilities” and three on the impact of family demands on work (such as “Because I am often stressed from family responsibilities, I have a hard time concentrating on my work”) (Matthews, Kath and Barnes-Farrell, 2010). Respondents indicated the extent to which they agreed or disagreed a scale from 1 (strongly disagree) to 5 (strongly agree).

Job insecurity

The Job Insecurity Scale (Vander Elst, De Witte & De Cuyper, 2014), asked respondents to express the extent, using a 5-point scale, to which they agreed or disagreed with four statements about their job security. Using statements such as “I feel insecure about the future of my job”, this scale provides data on respondents’ perception relating to current and future job loss.

Workplace bullying, cyber-bullying and sexual harassment

Bullying was measured using the Short Negative Acts Questionnaire (S-NAQ) which comprises 9 items relating to person-oriented, work-related, and social exclusion behaviours associated with bullying situations (Notelaers & Einarsen, 2008). The S-NAQ measures the frequency of exposure, over a six-month period, to negative interpersonal and work-related behaviours while at work.

Using the relevant definitions below, self-report responses were collected to measure instances over the previous 6-month period of witnessing bullying of others in the workplace and also of cyberbullying and sexual harassment (both personally experienced and witnessed).

The following definitions were provided for bullying, cyberbullying and sexual harassment respectively, to reduce possible variations in respondents’ interpretation:

Bullying was defined in the survey as:

“a situation where one or several individuals persistently over a period of time perceive themselves to be on the receiving end of negative actions from one or several persons, in a situation where the target of bullying has difficulty in defending him or herself against these actions. We do NOT refer to a one-off incident as bullying”.

Cyberbullying was defined as:

“a situation where one or several individuals, persistently over a period of time, perceive themselves to be on the receiving end of negative actions conducted through technology (e.g. phone, email, websites and social media) which are related to their work context. In this situation, the target of workplace cyberbullying has difficulty defending him or herself against these actions”.

Sexual harassment was defined as:

“as unwanted sex-related behaviours at work that are perceived as offensive, exceed your coping resources, or threaten your well-being. This includes unwelcome verbal and non-verbal sexual behaviours, as well as undesired physical behaviours”.

Job demands

A 7-item scale asked for a response from 1 (never) to 5 (extremely often) about factors such as work pace, work volumes and time pressure (Karasek, 1979), using questions such as “To what extent does your job require you to work fast?”.

Job resources

Perceived management competence

To understand respondents’ perception of management competencies, twelve statements asked the extent to which they agreed (from 1, strongly disagreed to 5 strongly agreed) that their immediate manager demonstrated particular management qualities. These were based on a ‘management competencies for preventing and reducing stress at work’ (MCPARS) framework (Yarker, Lewis and Donaldson-Feilder, 2008), which included competencies such as integrity (“My manager demonstrates integrity”), problem-solving skills (“My manager has good problem solving skills”) and conflict management (“My manager manages conflict”.)

Co-worker support

Respondents were asked about the support that they received from colleagues at work, including helpful information or advice (“My colleagues provide helpful information or advice about my work”), sympathetic understanding and concern, clear and helpful feedback, and practical assistance (O’Driscoll, Brough and Kalliath, 2004). The extent of agreement with the four statements was indicated using a 6-point scale (1, never to 6, all the time).

Job flexibility

Job flexibility was measured using a 9-item scale drawing on method autonomy scheduling autonomy and criteria autonomy (Breugh, 1999). Respondents indicated the extent of agreement with statements such as “I have the ability to determine my working hours” using a Likert scale from 1 (strongly disagree) to 5 (strongly agree).

Perceived organisational justice

A 6-item scale asked respondents about their experience of fairness (i.e. justice) within their organisation (Ambrose & Schminke, 2009). Respondents indicated the extent of agreement with statements such as “Overall, I’m treated fairly by my organisation” using a Likert scale from 1 (strongly disagree) to 7 (strongly agree).

Inclusion

Inclusion was measured with a 14-item instrument (Mor-Barak and Cherin, 1998). Using a Likert scale (1, strongly disagree, to 6, strongly agree), respondents were asked the extent to which they ‘feel a part of critical organisational processes’ with respect to 14 statements encompassing three domains: work group involvement (such as “I feel part of informal discussions in my work group”), influence in decision making (such as “I am able to influence work assignment decisions”), and access to communications and resources (such as “I have all the materials I need to do my job”).

Worker health and wellbeing

Psychological distress

The Kessler Psychological Distress Scale (K10) scale, comprising 10 questions about emotional states, was used to measure psychological distress (Kessler et al., 2003). Responses were based on how the person was feeling in the past four weeks, and scored on a 5-point scale ranging from 'none of the time' to 'all of the time'.

Further insight into the potential impact of psychological distress was obtained using a single item question from the Patient Health Questionnaire (PHQ-9) (Kroenke & Spitzer, 2002) which asked respondents 'how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?'. Four response options were provided which ranged from 'not difficult at all' to 'extremely difficult'.

Job-related stress

A single item asked "How stressful do you find your work environment" (Lutgen-Sandvik et al., 2007.) Respondents rated the amount of stress felt in their job between 1 – no stress and 10 – extreme stress.

Physical symptoms

Questions about physical symptoms were based on the Standardised Nordic questionnaires for the analysis of musculoskeletal symptoms (Kuorinka et al., 1987). Respondents were asked to indicate 'yes' or 'no' to whether they have "at any time in the last 12 months had any trouble (ache, pain, discomfort, numbness) in any part of your body that has prevented you from carrying out normal activities (e.g. job, housework, hobbies)?" Those that answered 'yes' were asked the total length of time (in days) this trouble prevented them from carrying out normal activities. A further question allowed them to select the parts of the body where they had experienced these symptoms.

Indicators of organisational wellbeing

Job satisfaction

Overall job satisfaction was measured by asking respondents to rate how they felt about their job, 'taking everything into consideration', using a scale ranging from 1 (extremely dissatisfied) to 7 (extremely satisfied) (Warr, Cook and Wall, 1979).

Engagement

Work engagement has been considered a dimension of employee wellbeing within a working environment. To measure work engagement, respondents were asked how they feel at work with respect to nine statements from the Utrecht Work Engagement Scale – Shortened Version (UWES-9) (Schaufeli, Bakker & Salanova, 2006). The statements described feelings of engagement, such as "at my job, I feel strong and vigorous" and "I am immersed in my work".

The frequency of experiencing these feelings were measured on a 7-point scale ranging from 'never' to 'every day'.

Intention to leave

An indication of respondents' commitment to their organisation was measured by asking for their level of agreement with three items about their intention to leave their organisation. These were adapted from a 'three-component conceptualization' (Meyer, Allen and Smith, 1993), using a scale from 1 (strongly disagree) to 7 (strongly agree).

Absenteeism

A single item from the World Health Organisation Work Performance Questionnaire (HPQ; Kessler et al., 2003) was used to measure absenteeism. This asked for reported entire work days missed because of problems with physical or mental health.

2.5 Procedure

The opportunity to participate in the NZWB was promoted through the Healthy Work Group's network and by contacting organisations that participated in 2018. There was no cost to organisations or participants beyond the time associated with employees completing the survey. A link to the survey was provided to allow organisations to electronically distribute the survey to their employees. Participating organisations with 50 or more respondents received an anonymised organisational-level report, to allow comparison of their outcomes against the total sample.

2.6 Individual organisation reports

An example of an organisational report is provided in Appendix 1 (using fabricated data). The reports provide easy to understand feedback to the organisation on their PSC and specific psychosocial hazards. Firstly, PSC mean scores were presented and compared with published industry benchmarks for best-practice. Secondly, the means and standard deviations (sd) or self-reported percentages for the remaining variables were presented. This allowed organisations to compare their scores with the variable scoring range and with the entire 2019 sample of respondents. Also, mean scores of the organisation were rated, using a 'traffic light' system (Table 3), relative to the mean scores of the entire 2019 NZWB sample (i.e. 1 sd either side of the mean scores from all 2019 NZWB respondents).

Table 3: Rating used to compare mean scores of the organisation with the entire 2019 sample

	Indicates that the results from your organisation are <i>significantly more favourable</i> than the results from the entire 2019 NZWB sample.
	Indicates that the results from your organisation are <i>broadly comparable</i> with the results from the entire 2019 NZWB sample.
	Indicates that the results from your organisation are <i>significantly less favourable</i> than the results from the entire 2019 NZWB sample.

3. Results

The following sections outline results from the 2019 NZWB, comprising 25 organisations, and 1210 individual respondents.

3.1 Relationships between study variables

Appendix 2 shows correlations between all continuous study variables. As with most studies with relatively large samples, significant correlations were found between most study variables. For this reason, it is helpful to consider the strength of the correlation as well as whether its relationship with other study variables is in the expected direction (positive or negative). A correlation coefficient (r) can be considered as weak when $r = .20$, moderate when $r = .30$, and strong when $r = .50$ or larger (Cohen, 1992). Given the large sample size, correlations were only considered significant if $p < 0.01$ or $r > 0.30$. See Appendix 2 for the full table of correlation coefficients.

Using these criteria, there were no significant correlations between participants' age, tenure or organisational size and any of the study variables.

Psychosocial safety climate (PSC) was associated with higher levels of:

- Perceived management competence
- Co-worker support
- Inclusion
- Flexibility
- Perceptions of organisational justice
- Employee engagement, and
- Job satisfaction.

PSC was also associated with lower levels of:

- Work-family conflict
- Job insecurity
- Bullying
- Job demands
- Psychological distress, and
- Intention to leave.

This is consistent with the wider literature on PSC, indicating its positive associations with workplace resources and negative relationships to distress.

Higher levels of perceived management competence and co-worker support were associated with less work-family conflict (but not family-work conflict), job insecurity, bullying, distress and intentions to leave, and higher levels of inclusion, flexibility, perceived organisational justice, engagement and job satisfaction. Taken together these findings indicate the importance of a positive workplace social environment for individual and organisational wellbeing.

3.2 Psychosocial Safety Climate

As outlined above, PSC comprises four domains: senior management support, management priority for employee psychological health and safety, communication about psychological health and safety and participation and involvement. Each domain was computed as the sum of three items on scales from 1-5, so the minimum possible score for each domain was 3, and the maximum possible score was 15.

The overall PSC scale was computed as the sum of 12 items. The minimum overall PSC score was therefore 12, and the maximum possible score was 60.

Overall PSC ratings and the four individual domains of PSC were acceptable (Table 4), indicating moderate levels of psychosocial safety climate among the respondents in the 25 participating organisations. With respect to the published benchmarks for PSC, the overall score was below the 'best-practice standard' threshold of 41, which is associated with a low-risk of employee job strain and depressive symptoms (Bailey, Dollard & Richards, 2015), but above 37, below which is associated with negative outcomes such as employee job strain and depressive symptoms.

Table 4: Psychosocial safety climate subscales and overall scale: means and standard deviations.

Domain	Minimum possible score	Maximum possible score	Mean	Standard deviation
Management support	3	15	9.48	3.21
Management priority	3	15	9.71	3.34
Communication	3	15	9.45	2.90
Participation	3	15	9.77	2.87
Overall psychosocial safety climate	12	60	38.41	11.33

- A PSC score of 41 is considered a 'best-practice standard' threshold which is associated with a low-risk of employee job strain and depressive symptoms. A score below 37 is associated with negative outcomes such as employee job strain and depressive symptoms.
- The overall psychosocial safety climate mean score was 38.4. In relation to the published benchmarks for PSC:
 - 44.9% of respondents indicated scores greater than or equal to 41, suggesting a *low risk* of psychosocial outcomes to these workers.
 - 44.4% of respondents reported scores below 37, indicating a potential *high psychosocial risk* to these workers with associated negative outcomes such as to job strain and depression.

- There were no significant differences in perceptions of PSC by participant gender, age, tenure, fulltime vs. part-time work, whether or not they were working from home, or among those who were permanent, fixed-term, casual or self-employed.
- People who were in their preferred employment arrangements reported higher perceptions of PSC than those who were not.
- Respondents from the *public administration and safety* sector and the *health care and social assistance* sector reported the lowest PSC scores. Respondents from *electricity, gas, water and waste services* and *retail trade* reported the highest scores.
- Senior managers and mid-level managers reported higher levels of PSC than those in other roles.
- Higher PSC was associated with lower levels of work-family conflict, job insecurity and bullying.
- Higher levels of PSC were positively associated with perceptions of increased levels of management competence, co-worker support, inclusion, job flexibility and perceptions of justice.
- In terms of individual wellbeing, higher levels of PSC were associated with less psychological distress and job-related stress.
- For organisational wellbeing, higher levels of PSC were positively associated with higher levels of employee engagement, job satisfaction, and lower intentions to leave.
- Regression analysis identified that the relationships between higher levels of PSC and reduced levels of distress and increased levels of engagement were mediated by the presence of job resources, rather than by a reduction in job demands.
- Workplace bullying and job insecurity – two especially severe stressors – were lower with higher levels of PSC. However, PSC did not moderate or reduce the effects of bullying and insecurity on psychological distress or job satisfaction.

3.3 Job demands and harm

Workplace bullying, cyber-bullying and sexual harassment

- The workplace bullying prevalence rate was 11% (behavioural exposure rate from the S-NAQ).

- The most frequently reported negative behaviours (reported at least monthly or more frequently) were ‘someone withholding information which affects your performance’; ‘being ignored by people at work (being ignored, excluded)’; ‘spreading of gossip and rumours about you’ and ‘facing a hostile reaction when you approach others’.
- The highest workplace bullying prevalence rates were reported from respondents in the *Construction* sector and lowest in the *Education and Training* sector.
- Respondents working in casual positions reported significantly less bullying than permanent workers.
- Exposure to workplace bullying was positively related to higher distress, intention to leave and job-related stress. Exposure to workplace bullying was also positively related to lower levels of perceived management competency, co-worker support and job satisfaction.
- Where levels of PSC were high, prevalence rates of exposure to workplace bullying were low.
- Mid-level managers reported the lowest rates of bullying.
- Table 5 reports the proportion of respondents who reported witnessing bullying and who self-identified as having been cyberbullied or sexually harassed during work and witnessing those same behaviours towards other people in their workplace during the previous 6-month period.

Table 5: Observed bullying and self-reported cyber-bullying and sexual harassment as a percentage of the overall sample⁵

	Total reporting Yes (%)
Observed bullying towards other people	40.7
Experienced cyberbullying themselves	4.9
Observed cyberbullying towards other people	9.4
Had been subjected to sexual harassment themselves	2.8
Had observed sexual harassment of other people	7.8

⁵ Percentage ‘yes’ includes ‘yes, only rarely’ to ‘yes, almost daily’. Although the same variable was used in 2018, the reported ‘yes’ percentage did not include ‘yes, only rarely’

Work-family and family-work conflict

- Work-family conflict was lowest for the youngest respondents (18-25 and oldest (65+) groups, and positively correlated hours worked per week.
- Family-work conflict was lowest for the group aged 45-54 years and was highest for 35-44 year olds.
- Union members reported significantly more work-family conflict than non-union members, as did full-time workers compared with part-time workers.
- The level of work-family conflict was associated with more family-work conflict, bullying, job demands, psychological distress and intentions to leave.
- Higher levels of reported work-family conflict were associated with lower levels of PSC and job resources such as perceived management competence, co-worker support, job satisfaction and inclusion.

Job insecurity and job demands

- Permanent workers reported the lowest levels of job insecurity and fixed-term the highest. Perceptions of job insecurity were highest in the *Media and Telecommunications* sector.
- Perceptions of job insecurity were associated with greater bullying and intention to leave and with lower levels of PSC, perceived management competence, inclusion and job satisfaction.
- Respondents in non-managerial positions had the lowest job demand scores, with managers reporting the highest.
- High job demands were associated with more psychological distress and job-related stress.

3.4 Job resources

Management competence

- Perceived management competence was significantly higher for those working their preferred employment arrangement and lower among union members.
- Although differences were not strong, the *Manufacturing* sector respondents showed lower levels of perceived management competence with *Education and Training* sector respondents the highest. Perceived management competence was positively associated with higher levels of PSC and a number of job resources including co-worker support, inclusion, job flexibility and perceived organisational justice.

- Perceived management competence was also associated with more engagement and job satisfaction and with less bullying, work-family conflict and psychological distress.
- Perceptions of management competence moderated or reduced the effects of bullying and job insecurity on psychological distress and job satisfaction.

Co-worker support

- The highest levels of co-worker support were reported among older workers (65+ years) and those working fewer hours per week.
- Higher co-worker support was associated with more engagement and job satisfaction and with less bullying, work-family conflict, intention to leave and psychological distress.
- Women reported significantly higher levels of co-worker support than men.

Job flexibility

- Fixed-term workers reported less flexibility than casual workers or contractors/self-employed, and union workers reported less flexibility than non-union workers.
- Those working at home for one or more day a week reported higher job flexibility than those that did not.

Perceived organisational justice and inclusion

- Perceived organisational justice was reported higher by those working their preferred employment arrangement and lower among union members. It was also higher among those working in small/medium businesses than large organisations. (Please note that there was low representation of SME organisations in the sample.)
- The extent to which workers reported feeling part of critical organisational processes was higher among managers and those working their preferred employment arrangement and lower among union members.

3.5 Worker health and wellbeing

Psychological distress and job-related stress

- Psychological distress, and the impact of distress, was higher among females and among younger workers. They were also higher for those in non-managerial roles compared with managers.

- Lower levels of distress and its impact were reported by those working their preferred employment arrangements.
- Higher levels of distress were associated with less engagement, lower perceptions of management competence and job satisfaction and with more bullying, work-family conflict, intention to leave and job-related stress.
- Full-time workers, healthcare workers and union members reported higher levels of job-related stress.
- Regression analysis identified psychological distress to be most strongly associated with bullying, work-family and family-work conflict, job demands and insecurity, while more inclusion was related to less distress.
- Regression analysis identified job-related stress as being most strongly associated with bullying, work-family conflict, job demands, and job insecurity.

Physical health

- Over one third (37%) of all respondents reported physical trouble (ache, pain, discomfort, numbness) during the previous 12 months that had that prevented them from carrying out normal activities. (e.g. job, housework, hobbies).
- These respondents reported symptoms in an average of 2.7 body areas (ranging between 1 and 9 areas), with the lower back, shoulders and neck the most frequently reported. Female respondents reported a small but significantly higher number of symptoms (body areas) than males.
- The mean number of reported days they were affected (where they were prevented from carrying out normal activities e.g., job, housework, hobbies) as a result of these physical problems was 33 days (SD 66.4) with a maximum of 365 days reported by 8 individuals.

Absenteeism

- More than two thirds of respondents (69.6%) reported an absence from work during the last 12 months due to 'physical or mental health'.
- Although there was a range of absenteeism reported (up to 180 days), 75 percent of the sample had 5 or less days absent during the last 12 months due to 'physical or mental health'.

3.6 Indicators of organisational wellbeing

Engagement and job satisfaction

- Those in non-managerial and team leader positions reported the lowest levels of engagement, while managers reported the highest levels. Job satisfaction was higher for managers and lowest for those in team leader roles.
- Engagement was strongly positively correlated with higher levels of PSC and both engagement and job satisfaction were positively correlated with age.
- Levels of job satisfaction were lower for fixed-term and permanent workers than for casual workers.
- Levels of engagement and job satisfaction were highest in the *Retail Trade* sector.
- Higher levels of engagement and of job satisfaction were associated with higher levels of perceived management competence, co-worker support, inclusion, and organisational justice.

Intention to leave

- Intention to leave was higher among younger respondents (i.e. negatively correlated with age).
- Higher intention to leave was associated with less perceived management competence, co-worker support, engagement and job satisfaction.
- Regression analysis identified that intentions to leave were most strongly associated with job insecurity and job demands, lower job flexibility, and less management competence, inclusion and perceptions of justice.

4. Summary

Psychosocial hazards and their associated risks include aspects of the design and management of work, and its social and organisational contexts, that have the potential to cause psychological or physical harm. Research in New Zealand and internationally has clearly demonstrated the association between psychosocial hazards and negative outcomes for individual and organisational wellbeing and performance. Improvements to the psychosocial environment within which individuals work have been shown to produce a significant return on investment for organisations.

The NZWB is designed to provide data to inform national, industry, and organisational approaches to psychosocial risk prevention at work, by identifying workplace indicators of mental health, stress-related conditions and some aspects of physical health. The NZWB also aims to provide annual data from which the evaluation of effectiveness of implemented policies and programs can be assessed over time.

The NZWB represents the first national-level psychosocial risk surveillance scheme in New Zealand. Alongside the primary aim of producing information on the prevalence, nature and impacts of psychosocial hazards in the New Zealand workplace, the NZWB provides individual reports for participating organisations from which they can develop measures to address psychosocial hazards in their workplaces and monitor their performance over time as well as benchmark against other organisations.

Organisational responses to the 2019 data and the advice given in the organisational reports has been positive. A number of organisations who participated in 2018 and/or 2019 have indicated a desire to participate in 2020, along with interest from new organisations keen to be involved. It is intended that the NZWB will be conducted later in 2020, to increase the number of respondents and participating organisations providing data from which to determine the leading indicators of stress-related conditions.

4.1 Key findings

This report has documented many important and valuable findings and relationships. However, our analyses point to a number of key findings which we believe should be the primary focus of healthy work initiatives to address psychosocial hazards and their associated risks, as well as to improve the wellbeing of those involved.

Overall, this study highlights the beneficial features of a positive work environment including a thriving **psychosocial safety climate (PSC)**, perceptions of **management competence**, feelings of **inclusion** and perceptions of **organisational justice**. These four variables are the key resources identified in this study which organisations, industries and policy makers could focus on for developing and nurturing worker health and wellbeing, and to achieve positive organisational outcomes more generally.

Conversely, the toxic effects of **bullying** and **job insecurity** were evident in their relationships with reduced **job satisfaction** and **engagement**, and increased **distress** and **intentions to leave**. Furthermore, the effects of job insecurity were stronger than those of bullying – employees who feel little security in their work may feel less loyalty and commitment and be more prepared to leave for better opportunities. These results strongly suggest that, wherever possible, organisations need to prioritise employee security and healthy workplace relationships.

Finally, there are a number of important implications of these findings for the present COVID-19 economy:

- The importance and impact of job insecurity as a potent source of employee distress is likely to be far more salient now than was evident in late 2019 when this Workplace Barometer survey took place.
- It seems reasonable to expect that workplace bullying is likely to be exacerbated by increased organisational change and uncertainty associated with the present COVID-19 environment.
- Overall, although organisational leaders, themselves under pressure, may feel less able to prioritise organisational climate initiatives (e.g., PSC), they should not lose sight of the importance of inclusion, justice and perceptions of management competence on healthy work and positive organisational outcomes.

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Appendix 1: Example of an organisational report

(all data are fabricated)



New Zealand Workplace Barometer Organisational Report

Introduction

Psychosocial hazards and their associated risks include aspects of the design and management of work, and its social and organisational contexts, that have the potential to cause psychological or physical harm. Research in New Zealand and internationally has clearly demonstrated the association between psychosocial hazards and negative outcomes for individual and organisational wellbeing and performance. Improvements to the psychosocial environment within which individuals work have been shown to produce a significant return on investment for organisations.

The New Zealand Workplace Barometer (NZWB)

The NZWB is a survey that provides organisations with information to assess psychosocial hazards and to promote improvements in the psychosocial work environment. The survey measures psychosocial safety climate (PSC) as well as other psychosocial factors that impact on outcomes for individual and organisational wellbeing and performance. Organisations participating in the NZWB provide access for data collection in exchange for a report summarising the psychosocial hazards and associated risks within their organisation. Organisations who participate annually can use their results to understand and monitor their performance with respect to their psychosocial environment. The following table provides a demographic breakdown of the entire 2019 NZWB sample against which your organisation's results have been compared.

Table 1. Individual and employment characteristics of all 2019 NZWB survey respondents

	N	%		N	%
Gender			Age range		
Male	608	50.2	18-25	90	7.4
Female	596	49.3	26-34	269	22.2
Gender diverse	6	0.5	35-44	304	25.1
Ethnicity⁶			45-54	298	24.6
NZ European	873	72.1	55-64	220	18.2
Māori	88	7.3	65+	29	2.4
Samoan	19	1.6	Employment arrangement		
Cook Island Māori	6	0.5	Permanent	1134	93.7
Tongan	4	0.3	Fixed-term	57	4.7
Niuean	3	0.2	Casual	7	0.6
Chinese	43	3.6	Contractor/self-employed	8	0.7
Indian	45	3.7	Other	4	0.3
Other	234	19.3	Job title		
Current employment			Employee / Contractor	761	62.9
Full-time	1130	93.4	First-line supervisor / Team leader	157	13.0
Part-time	71	5.9	Mid-level manager	186	15.4
Varies	9	0.7	Senior manager	73	6.0
			Other	33	2.7

⁶ Some respondents identified with more than one ethnic group

Your organisation's results

The following sections provide the results of your organisation's psychosocial safety climate (PSC) and your psychosocial risk profile based on the responses from 199 respondents who participated in the 2019 NZWB survey. These results can assist in your decision-making about where to direct resources and focus attention with respect to psychosocial hazards and associated risks. Should you elect to participate in the 2020 NZWB survey (and beyond) you will be able to develop an understanding of changes to your organisation's psychosocial environment over time. We have provided your results as mean scores (and standard deviation (sd) to indicate the variation in responses) or percentages. You can compare your results for each variable with the mean of the entire 2019 NZWB sample. It is important to note that your findings will not necessarily be representative of your organisation as a whole and will only indicate the views of those that responded. The higher the proportion of your employees who participated, the more confidence you can have that these findings accurately reflect the psychosocial environment in your organisation.

1. Psychosocial Safety Climate (PSC)

PSC measures the perception of the organisation's concern for the psychological health and safety of its workers – including worker wellbeing and work stress. The 12-item PSC tool measures PSC across four aspects: 1) management commitment and support for psychological health and safety; 2) management prioritisation of psychological health and safety; 3) organisational participation in psychological health and safety; and 4) organisational communication about psychological health and safety.

The higher your overall PSC score, the more likely your climate will be associated with favourable psychological and physical health and safety.

Published benchmarks for PSC indicate that a score of 41 and over is a 'best-practice standard' threshold which is associated with a low-risk of employee job strain and depressive symptoms. A PSC score of 37 and below is associated with negative outcomes such as employee job strain and depressive symptoms.

PSC variable	Your organisation's score	Entire 2019 NZWB sample
PSC-12 Scoring range: 12-60 ⁷	Your mean score: 35.55 (sd: 11.59)	Mean score: 38.41 (sd: 11.32)

Comment on PSC score:

Your results were below the published benchmark of 37, indicating a high-risk of employee job strain and depressive symptoms. Measures to address the psychological health and safety of workers at your organisation and to improve PSC and individual and organisational outcomes include:

- Effective and timely two-way communication around psychological health and safety.
- Initiatives that enhance the level of worker involvement in psychological health and safety.
- An increased commitment and support at senior levels of the organisation for psychosocial health and safety.
- Strengthening of assessment, management, communication and support for work stress and psychological demands within the organisation.

⁷ In the in 2018 reports these scores were converted and presented as between 0-100

2. Psychosocial risk profile

The following tables present your results for each of the variables. You can consider where your scores sit within the scoring range for each variable. Also, a colour system, as outlined below, has been used to rate your mean scores relative to the mean scores of the entire 2019 NZWB sample (i.e. 1 sd either side of the mean scores from all 2019 NZWB respondents). Please note these ratings are indicative only, aimed at assisting you in where to focus your attention.

	Indicates that the results from your organisation are <i>significantly more favourable</i> than the results from the entire 2019 NZWB sample.
	Indicates that the results from your organisation are <i>broadly comparable</i> with the results from the entire 2019 NZWB sample.
	Indicates that the results from your organisation are <i>significantly less favourable</i> than the results from the entire 2019 NZWB sample.

Job demands and harm

Higher scores mean greater psychosocial job demands or harm.

Job Demand variable	Your organisation's score	Entire 2019 NZWB sample
Work-family conflict Scoring range: 1-5	Mean: 2.99 (sd: 1.01)	Mean: 2.69 (sd: 1.02)
Family-work conflict Scoring range: 1-5	Mean: 2.10 (sd: 0.75)	Mean: 2.07 (sd: .80)
Job insecurity Scoring range: 1-5	Mean: 2.25 (sd: 0.99)	Mean: 2.18 (sd: 1.04)

Harm variable	Percentage 'yes', your organisation (%) ⁸	Percentage 'yes', entire 2019 NZWB sample
Workplace bullying – self reported	25%	20%
Workplace bullying – witnessed	49%	41%
Cyber-bullying – self reported	8%	5%
Cyber-bullying – witnessed	15%	9%
Sexual harassment – self reported	2%	3%
Sexual harassment – witnessed	10%	8%

Comments:

Your results indicate that your organisation needs to pay particular attention to managing workplace bullying, cyber-bullying and sexual harassment. A high percentage of respondents reported being on the receiving end of, or witnessing these negative actions, and these values were also higher than that of the entire 2019 sample in all three areas.

Improving performance in these areas is recommended through the development of a strong culture of respect, strong management competencies, good reporting systems, and training and awareness around workplace bullying, cyber bullying and sexual harassment across your organisation.

⁸ Percentage 'yes' includes 'yes, only rarely' to 'yes, almost daily'. Although the same variable was used in 2018, the reported 'yes' percentage did not include 'yes, only rarely'.

Job resources

Higher scores mean more favourable psychosocial job resources.

Job Resource variable	Your organisation's score	Entire 2019 NZWB sample
Management competencies Scoring range: 1-5	Mean: 3.52 (sd: 0.95)	Mean: 3.78 (sd: .92)
Co-worker support Scoring range: 1-5	Mean: 3.85 (sd: 0.85)	Mean: 3.98 (sd: .84)
Work Group Involvement Scoring range: 1-6	Mean: 4.05 (sd: 1.02)	Mean: 4.34 (sd: 1.01)
Influence in Decision Making Scoring range: 1-6	Mean: 3.33 (sd: 1.25)	Mean: 3.69 (sd: 1.22)
Access to Communications and Resources Scoring range: 1-6	Mean: 3.95 (sd: 0.99)	Mean: 4.04 (sd: 1.00)
Fairness (Perceived organisational justice) Scoring range: 1-7	Mean: 5.10 (sd: 1.40)	Mean: 5.15 (sd: 1.35)

Comments:

Your organisation's scores are broadly comparable with the results from all 2019 respondents. However, efforts to implement measures to improve all these areas of job resources would positively impact the working experience and wellbeing of your workforce.

Worker mental health and wellbeing

Higher scores mean poorer mental health and wellbeing.

Individual variable	Your organisation's score	Entire 2019 NZWB sample
Psychological distress Scoring range: 10-50	Mean: 19.10 (sd: 7.95)	Mean: 19.00 (sd: 7.75)
Impact of psychological distress Scoring range: 1-4	Mean: 1.659 (sd: 0.75)	Mean: 1.64 (sd: .71)

Comments:

Your results suggest that the mental health and wellbeing of the sample of respondents from your organisation are broadly comparable with the results from all 2019 respondents. Higher scores indicate poorer mental health and wellbeing, so a focus on prioritisation of psychological safety, along with communication about psychosocial hazards to further lower these scores is likely to improve psychological outcomes.

Indicators of organisational wellbeing

Unless indicated, higher scores mean better outcomes.

Organisational wellbeing variable	Your organisation's score	Entire 2019 NZWB sample
Engagement Scoring range: 1-7	Mean: 5.35 (sd: 1.30)	Mean: 5.28 (sd: 1.29)
Job satisfaction Scoring range: 1-7	Mean: 4.75 (sd: 1.55)	Mean: 4.86 (sd: 1.52)
Leave intentions (lower score is better) Scoring range: 1-7	Mean: 3.30 (sd: 1.90)	Mean: 3.46 (sd: 1.94)

Comments:

Your organisation's scores are broadly comparable with the results from all 2019 respondents. Further measures to address worker engagement and job satisfaction and to improve PSC and individual outcomes are likely to improve the psychosocial environment of your organisation.

Thank you again for your participation and we look forward to your involvement in the 2020 NZWB.

A full report on the NZWB will be sent to your organisation once it has been prepared. This report will provide greater detail on the nature of the variables employed in this study and will examine the relationship between study variables.

Appendix 2: Table of correlation coefficients

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
1. Tenure																				
2. Org. Size	.14																			
3. PSC	-.06	-.08																		
4. WFC	.06	.01	-.44*																	
5. FWC	.04	-.03	-.15	.39*																
6. Insecurity	.04	.04	-.35*	.28	.20															
7. NAQ9	.01	-.01	-.41*	.38*	.17	.32*														
8. Job demands	-.05	-.01	-.23	.44*	.18	.15	.26													
9. Mgt. competence	-.05	.00	.59*	-.39*	-.19	-.33*	-.46*	-.15												
10. Co-worker Support	-.03	-.02	.40*	-.32*	-.23	-.25	-.35*	-.09	.40*											
11. Inclusion	.02	-.03	.60*	-.41*	-.23	-.43*	-.48*	-.08	.65*	.50*										
12. Job Flexibility	-.03	-.02	.33*	-.26	-.05	-.15	-.25	-.06	.32*	.21	.40*									
13. POJ	-.04	-.07	.68*	-.42*	-.19	-.42*	-.25*	-.26	.57*	.38*	.62*	.33*								
14. Psych. Distress	-.12	.01	-.35*	.40*	.28	.37	.41*	.30*	-.33*	-.24	-.41*	-.17	-.38*							
15. Impact of psych distress	-.09	.02	-.34*	.41*	.32*	.29	.32*	.27	-.31*	-.25	-.36*	-.15	-.33*	.70*						
16. Absenteeism	.04	.07	-.06	.05	.07	.10	.08	.04	-.04	-.00	-.04	-.03	-.06	.11*	.14					
17. Engagement	.06	-.07	.46*	-.31*	-.22	-.29	-.23	-.05	.43*	.32*	.50*	.25	.44*	-.43*	-.39*	-.05				
18. Job Satisfaction	.05	-.00	.59*	-.42*	-.24	-.43*	-.40*	-.22	.56*	.38*	.61*	.30*	.60*	-.48*	-.44*	-.06	.72*			
19. Intentions to leave	-.09	.01	-.47*	.37*	.21	.48*	.36*	.26	-.45*	-.30*	-.47*	-.20	-.55*	.43*	.37*	.11	-.52*	-.68*		
20. Presenteeism	.00	-.03	.29	-.34*	-.34*	-.29	-.26	-.24	.29	.24	.33*	.14	.33*	-.52*	-.54*	-.14	.38*	.37*	-.34*	
21. Stress	.02	.04	-.33*	.47*	.22	.27	.35*	.57*	-.28	-.17	-.26	-.10	-.36*	.43*	.39*	.08	-.22	-.37*	.36*	-.33*