WORKPLACE SAFETY CLIMATE SURVEY

Final Report

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1.0 Introduction

Workplace safety climate has become an important concept in the applied psychology of occupational health and safety over the last three decades. It is seen as a key component and indicator of the practical and operational manifestations of an organization's safety culture (Cox & Flin, 1998).

A substantial body of theoretical analysis and empirical research has developed around the safety climate construct (Huang et al., 2010). The concept is operationalized through measuring workers' perceptions of the priority given to safety in the various levels of an organization; these perceptions are seen as being built up from workers detecting patterns or inconsistencies in safety policies, procedures, and practices (Zohar & Luria, 2005; Zohar, 2010). Scott Geller, a leading academic behaviour analyst and industrial safety consultant, has long advocated that safety is too important to be a priority, as it might be traded off against other priorities. Rather, safety should be a core value that cannot be compromised by trade-offs (Geller, 1996). Geller's safety value concept may be seen as the ideal end of a continuum of safety commitment, with many organizations not yet achieving the ideal. Safety climate assessments and measures play a useful role in identifying an organization's position on this continuum, to help guide and motivate positive change.

Continuing interest in workplace safety climate has been driven by its potential as a leading indicator of safety performance, as opposed to traditional lagging indicators, such as retrospective accident rates (Flin et al., 2000). In addition to its value as a leading indicator, workplace safety climate is also seen as a direct antecedent of desirable safety-related behaviours by employees. From the early days of the study of the concept, Zohar (1980) saw safety climate as a framework to guide the behaviour of employees through their perceptions and expectations. Griffin & Neal (2000) found evidence that safety climate was linked to behaviour through motivation to perform job-related tasks safely, as well as to participate in contextual safety activities, which in turn led to stronger safety knowledge. The potential of the safety climate concept has been borne out in practice, with numerous research studies, as well as recent meta-analyses, showing significant predictive validity of safety climate survey measures against other measures of safety performance (Nahrgang et al., 2007; Christian et al., 2009). Whether as an indicator of specific protective factors, a direct influencer, or both, workplace safety climate is quite strongly related to safety performance. While significant, these correlation levels suggest a relatively small portion of performance variance being explained by safety climate. However, these correlations undoubtedly suffer from some attenuation due to unreliability of the measures, which, while psychometrically acceptable, are no doubt far from perfectly reliable in practice. This implies that safety climate measures may well encompass an even greater portion of the variance in safety performance than demonstrated in the already impressive research findings.

1.1 Background and goals

SAFE Work Manitoba is "responsible for promoting and delivering services related to workplace injury and illness prevention" (SAFE Work Manitoba, n.d.). It aims to "foster a robust culture of workplace safety and health in Manitoba" (SAFE Work Manitoba, n.d.). One method to do this is to provide workplaces a method of measuring their safety climate that assists both SAFE Work Manitoba and the workplace itself in understanding employees' attitudes and behaviour when it comes to safety. Such a survey could not only provide SAFE Work Manitoba with a leading indicator of potential safety problems, but would allow the workplace to proactively address safety issues of which it may not have been aware. To be clear, these are not necessary safety explicit issues (e.g., lack of equipment), but safety in the abstract (e.g., employees' perceptions, attitudes and behaviours in the workplace that might be deemed workplace safety climate).

However, such a survey would help support SAFE Work Manitoba's mission to "prevent workplace injuries and illnesses through promotion, protection, and education" (SAFE Work Manitoba, n.d.). The survey and its results should provide both SAFE Work Manitoba and individual organizations a method to monitor the safety climate and address a poor safety climate before it is manifested in workplace injuries. That being said, such a survey is just one tool for understanding safety in an organization's workplace.

SAFE Work engaged PRA Inc. to help improve its safety climate survey. The purpose of this research was to strengthen the reliability, validity, and practical utility of the survey through the development of a more effective workplace safety climate survey instrument and guidelines for interpreting survey data. SAFE Work Manitoba was using a survey as part of a larger effort to evaluate workplace safety, and it was recognized that there was a number of challenges in using this instrument.

- The existing safety climate survey was initially designed for the manufacturing sector and was not necessarily applicable to all workplaces.
- The survey classified respondents as workers, supervisors, or management, when in many workplaces such a hierarchy does not exist, and individuals work across these positions.
- At 32 questions, the survey was considered long and time consuming by some, particularly if the respondents have English as an additional language, possess low literacy levels, or are unfamiliar with the process.

The proposed new survey instrument is to be an integral part of the SAFE Work Manitoba's assessments of the overall safety climate. The goals for a new survey instrument are the following:

- The questions would also be able to help confirm or identify discrepancies with findings from other assessment procedures, such as the document reviews, interviews, and observations.
- The results would add strength to discussions of assessment findings with workplace leadership, help identify solutions and priorities, and support the business case presentation for improvements.

- It would be applicable and reliable across a wide range of industries.
- It would work well across levels within organizations, and thus the language and question structure would be unambiguous and clearly relevant to respondents at different levels and in diverse roles within all organizations.
- The language used would be as simple as possible to allow for a common understanding across all educational and English-language proficiency levels.
- It would be as short as possible. If the number of questions is reduced and these are easier to answer, the respondents' time and effort for answering will be reduced. Making the respondents' task easier and clearer should increase response rates and the representativeness of the responses, and it will benefit other psychometric properties as well. Both reliability and validity should improve demonstrably.

The research involved four primary and secondary research tasks:

- **A literature review**. The purpose of the literature review was to understand the current state-of-the-art climate safety survey research; the current survey instruments in use; and whether an existing instrument can be adopted by SAFE Work Manitoba, or whether a survey instrument needs to be developed.
- **Questionnaire design**. If an existing survey instrument was not found to meet the needs of SAFE Work Manitoba, one would be designed for testing. Using the literature, the research would create a questionnaire that linked questions to key themes.
- **Focus groups.** The questionnaire would be tested in a focus group setting, involving safety representatives from various organizations. The idea was to understand if the concept and language was appropriate for various industry types, various types of employees within an organization, and various literacy levels. The questionnaire would be revised based on feedback from the groups.
- **Pilot surveys.** The goal of the pilot was to test the questionnaire in a variety of workplaces (ideally representing different industries and both large and small employers), and using various methodologies (email and paper distribution). By testing the sample with a large population across various workplaces, we would be able to test the variability of the responses across employee type, industry type, and injury rates. The goal was to be able to identify a small number of questions that could be used to reliably measure workplace safety climate.

2.0 Research

2.1 Literature review[1]

The first step of this study was to conduct a literature review. The literature review found that safety climate is of concern to safety practitioners and researchers because of links between safety climate and employees' safety-related behaviours, including safety compliance performance and participation in safety-supportive activities. There are also demonstrated links between safety climate and organizational safety outcomes, such as recorded accidents rates; self-reported accidents; and self-reported occupational injury frequency and severity. A large and rapidly growing volume of research on safety climate and safety culture points toward a future where applications of safety climate measures can be more confident and effective. The research is almost entirely based on questionnaire data.

While the field is quite fragmented in many ways, approaches to questionnaire development have been fairly consistent. Research teams have developed their survey instruments by reviewing the existing literature and either writing their own items or borrowing and modifying items from other research teams. Pretesting with cognitive interviews or focus groups is often undertaken. In this body of research, the role of safety climate as a useful leading indicator of workplace safety is well established and supported. Issues of the nature and definition of safety climate are being researched with increasing frequency and technical precision. Antecedents to a healthy safety climate within organizational climate and management practices are being discovered and confirmed, and safety climate surveys are playing a key role in this development. On the other hand, factor structures and theoretical constituents of the safety climate construct are not well established and are controversial. Earlier concerns about the validity of safety climate measures, based on the limited use of objective validation criteria, can now be put to rest by studies showing the relationship of safety climate questionnaire responses and objective safety outcomes.

There is evidence that trust in management and other aspects of supportive management and organizational climate are components of strong and high-level safety climate, which can be a critical indicator of organizational health and safety. Safety climate measures can serve well as diagnostic tools for safety system monitoring, aids to the planning of safety program interventions, and as criterion measures for evaluating the impact of program interventions.

[1] See Northport Associates and PRA Inc., Safety Climate Survey: Literature Review, May 5, 2014

The literature review was focussed on providing guidance to four key issues for practical applications of safety climate questionnaires: 1) the role of generic questionnaire surveys in safety assessments; 2) expanding the scope of surveys across multiple industries; 3) extending climate surveys to personnel at all levels of organizations; and 4) improving the usability of questionnaires for all potential respondents. Conclusions from the review regarding these four issues follow.

- **Assessment role.** A survey instrument that meets the identified needs, improved applicability across all industries and organizational levels, and improved usability holds promise for strengthening safety climate assessments and realizing the potential for greater impact on workplace safety in Manitoba. Harmonization and coordination of safety climate survey instruments with other measures of safety practices and safety culture is recognized in the research literature, but it appears to have played a stronger role in practical application than in research. Safety climate surveys can clearly play a strong role in broadly applied assessments of organizational safety, such as audits and other types of investigations.

- **Industry scope.** The survey is intended to better serve in assessments of a wide range of industries. This is a challenge, but it is possible to use a scale across industries by focussing on core themes of managerial commitment and safety management. Extension of safety climate survey instruments across industry sectors is recognized and reasonably well demonstrated by generic survey instruments, some of which are quite short and easily applicable.

- **Organizational levels.** Another challenge of a single instrument is to ensure that the question structure is unambiguous and clearly relevant to respondents at different organizational levels and in diverse roles within all organizations. The existing safety climate literature provides little guidance on this subject, as survey methods of most studies only address operational workers, even if the conceptual focus is on climates at multiple levels. Careful drafting of questionnaire language and structure, as well as the pre-pilot testing of questions, will provide guidance in resolving the issue of relevance for respondents at different organizational levels and roles. The need for survey instruments applicable to personnel at all levels is recognized but not adequately addressed in the research literature.

- **Usability.** Optimizing the usability of the questionnaire for multiple industry sectors and for respondents at all organizational levels are key objectives for the project. Existing questionnaire item pools can be of assistance in meeting these objectives. Making the questionnaire more user friendly for diverse respondents' language abilities is also an objective. Concerns with some respondents finding the existing instrument too long or hard to respond to will be partly resolved by clarifying the levels and roles issue. Further improvement in usability will come from the vigorous screening and editing of questions for the comprehension of those with language limitations. A shorter instrument, consistent with a tightened focus, will help user friendliness. If the questions are easier to answer, the respondents' time and effort for answering will be reduced. Making the respondents' task easier and clearer will increase response rates and the representativeness of the responses, and it will benefit other psychometric properties as well. Completion rates, response quality, and the reliability of the safety climate survey should be improved.

The user friendliness aspect of usability is a key area where the safety climate research literature has little to offer. Technical survey adequacy is highly variable in the field, and there do not yet appear to be studies that either critically review such detailed methods issues or systematically examine the effects of different questionnaire parameters. Guidance is, however, available from general social research methods which are well established and proven.

- **Recommendations.** Given the instrument requirements outlined and the conclusions drawn from the study of the safety climate research literature and the identified survey instruments, a number of recommendations can be put forward to guide the questionnaire development process.
  - To meet the needs of SAFE Work Manitoba safety climate survey, a new questionnaire instrument should be developed. There is no existing instrument that meets all needs.
  - The instrument development process should proceed as planned. There is no reason found in the research literature to suggest changes in the questionnaire development process.
  - The development approach should leverage existing work and start with proven items from the existing short generic climate survey questionnaires. The large sample of questionnaires and items collected should be reviewed for individual questions.
  - Logic and language for respondents at different organizational levels and language abilities should be addressed as a key issue in discussions, focus groups, and pilot tests. There is guidance in the literature for respondents at different levels, but little for different language abilities.

2.2 Questionnaire design

Using the findings of the literature review as the basis, PRA Inc. in consultation with SAFE Work Manitoba developed a roster of questions that addressed various themes common in the literature:

- management commitment
- safety feedback/communication (from management)
- worker involvement in safety
- co-worker behaviour norms
- safety systems
- safety training
- equipment

We then linked existing survey questions to each of these themes. Since most of the safety climates surveys have built on the learning of previous surveys, many of the questions were the same by theme, while still many other questions were developed to address each of these themes. Working with SAFE Work Manitoba, we reviewed the questions by theme, attempting to select a sample of questions for testing. In selecting questions, we particularly were interested in those that appeared to be worded simply but meaningfully, as well as those that appeared to address the theme from slightly different perspectives.

The result was 29 questions that addressed each of these six themes. Table 1 shows the questions initially selected, related to each theme.

Table 1: Initial list of questions by theme

Theme	Questions
Management	– At my workplace, safety is at least as important as the quality of the work and getting the work done on time. – Those in charge of safety have the authority to make necessary changes. – Workers and management work together to ensure the safest possible conditions. – No major shortcuts are taken when worker safety is involved. – Where I work, the safety of workers is a high priority for management. – Management acts quickly when a safety concern or problem is raised. – Management listens carefully to workers' ideas about improving safety.
Safety feedback/communication from management to workers	– Formal safety audits are regularly conducted in my workplace. – Workers who act safety receive positive recognition (feedback). – Employees are told when they do not follow safety practices. – There are frequent communications about safety issues in my workplace. – Formal checks (inspections) are regularly done to see if workers are following safety rules.
Worker involvement	– Where I work, I feel free to report any safety problems. – I am clear about what my responsibilities are for safety. – Workers are regularly consulted about safety issues.
Co-worker behaviour norms	– At my workplace, everyone has the information they need to work safety. – Workers are (always) involved in decisions affecting their safety. – New employees learn quickly that they are expected to follow good safety practices. – In our organization, different departments work together to improve safety. – Co-workers often help and remind each other to work safely.
Safety systems	– Everyone at my workplace values ongoing improvement to safety. – My workplace regularly holds safety awareness events (e.g., presentations, ceremonies). – My workplace has a safety committee that is effective at improving safety.
Safety training	– Safety issues are given a high priority in training. – My workplace invests a lot of time and money in safety training for workers. – My workplace ensures I am clear about what my responsibilities are for safety. – I'm clear about the safety rules that affect me. – At my workplace, there is a system of rules about how to work safely.
Equipment	– In my workplace, everyone has the tools and/or equipment they need to do their work safely.

These questions were then tested in two focus groups.

2.3 Focus groups[2]

As part of a larger study on the development of a short, accurate, and predictive safe climate survey, PRA conducted two focus groups to test participants' understanding of various questions around safety in the workplace. Using a list of safety representatives provided by SAFE Work Manitoba from various organizations in Winnipeg, PRA recruited 20 participants with 10 attending each focus group. Participants tended to come from six different sectors (construction, service, manufacturing, transportation and storage, trade, and self-insured). Most represented larger organizations, with 100 or more employees, although there were some from smaller employers (with 50 to 99 employees). The participants were involved in health and safety in the workplace or were with Human Resources. We used the two groups to assess the questions we intended to use in the pilot. The purpose was having individuals review each question for clarity, understanding and meaning, and use of simple language.

As a result of the groups, one question was dropped, and many others were reworded for pilot testing. The final wording for the pilot is found in Table 2 in the next section.

2.4 Pilot

SAFE Work Manitoba identified five organizations that were willing to allow the survey instrument to be piloted. The goal was to get as large a response as possible from all employees, regardless of their position within the organization. In three sites, all employees were invited to participate, and in another all employees in a particular department of the organization were invited. In one of the six workplaces, only a subset of staff was invited and completed the survey. In this case, internal issues prevented the survey from being distributed more widely.

All work sites received the same survey instrument involving 31 questions. Of these, 28 were core to the study, as shown in Table 2. These questions were linked back to the themes identified above, but grouped into four, rather than seven, categories. In four work sites, two versions of the same questions were tested (those highlighted in red in the table below), with about half of employees getting one version and half the other.

For each of these statements, respondents were asked to rate their level of agreement on a scale of 1 to 5, where 1 meant strongly disagree and 5 meant strongly agree.

[2] See PRA Inc., Safety Climate Survey: The Results of Focus Group Testing, June 30, 2015

Table 2: Questions used in the pilot study	
Theme	**Question**
Management	1. In my organization safety is (at least) as important as quality of the work and getting the work done on time. 2. Those in charge of safety have the authority to make the changes they think are necessary. 3. Workers and management work together to ensure the safest possible conditions. 4. No major shortcuts are taken when worker safety is involved. 5. The safety of workers is a high priority for my organization. 6. My organization acts quickly when a safety concern or problem is raised. 7. My organization listens carefully to workers' ideas about improving safety.
Feedback/ communications to workers	8. Formal safety inspections are regularly conducted in my workplace. 9. Workers who act safely receive positive feedback. 10. Employees are told when they do not follow good safety practices. 11. There are frequent communications about safety in my workplace. 12. Formal inspections are regularly done to see if workers are following safety rules.
Worker involvement with safety	13. Workers are regularly asked about their safety concerns. 14. Where I work, I feel free to report safety concerns. 15. I understand what my rights and responsibilities are for safety.
Co-worker behaviour	16. At my workplace, everyone has the information they need to work safely. 17. Workers are (always) involved in decisions affecting their safety. 18. New employees at my organization learn quickly that they are expected to follow safety practices/rules. 19. Co-workers often help and remind each other to work safely.
Safety systems	20. My workplace values (improvements to) safety. 21. My workplace regularly has safety awareness events. 22. My workplace has a safety committee that is effective at improving safety.
Training	23. Safety is given a high priority in training programs. 24. My organization invests a lot of time in safety training for workers. 25. My workplace ensures I understand what my responsibilities are for safety. 26. At my workplace, there are rules and procedures about how to work safely. 27. I'm clear on how the safety rules affect me.
Equipment	28. In my workplace everyone has the tools and equipment they need to do their job safely.

An addition, three questions were included for background and context. These are shown in Table 3.

Table 3: Other questions included in pilot survey
29. Without any safety procedures in place, what would be the risk of injury to employees at your workplace?
30. Please rate your level of agreement with this statement: "Workplace injuries and accidents are an inevitable part of life."
31. Which of the following best describes your role within your organization? **Worker:** Those who do not oversee others. This may include skilled trades, labourers, administrative staff, clerks, etc., without supervisory responsibility **Supervisors/team leaders/middle management:** Those who oversee other staff or have responsibilities for assigning duties. **Senior management:** Organization decision makers, including the president, CEO, VP, and owners.

2.4.1 Participating work sites

Across six work sites, 1,085 employees responded to the survey. About half came from one work site.

- An organization could choose to do the survey online, on paper, or a mixture of both.
- PRA offered to manage all aspects of the online process. Most organizations did not wish to share their lists, and therefore, they managed this process themselves.
- In two cases, PRA was given access to employee email addresses and managed the invitations and follow-ups. In others, PRA provided an invitation email with a link.
- For staff without email, PRA arranged for questionnaires and return envelopes to be couriered to a location and the company was responsible for the distribution and collection. PRA then sent a courier to pick up the completed surveys.
- As mentioned, one workplace began the survey and then dropped out. While the responses are included in the overall results, they are not broken down for further analysis.
- The results across the six workplaces have a good mix of workers, supervisors/middle-managers, and senior management. A number of respondents did not provide whether they were a worker, supervisor, or manager, possibly because they thought it would identify them, or possibly because they did not see any of the categories as applying to them. Still, the level of none-response for a background question is not cause for concern.

Table 4 shows the number of returns by work site and by type of respondent.

Table 4: Profile of pilot sites

Profile	Number	Percent
Work site		
One	55	5%
Two	198	18%
Three	568	52%
Four	185	17%
Five	54	5%
Six	25	2%
Type of respondent		
Worker	639	59%
Supervisor/middle management	302	28%
Senior management	58	5%
No response	86	8%

3.0 Results of pilot

3.1 Validity of survey

3.1.1 Low question non-response

Overall, among the questions used to rate the safety climate, the non-response is very low, ranging from 0.7% to 3.2% for each of the 28 questions. The largest non-response was to the questions asking respondents to classify themselves a worker, supervisor/middle management, or senior management. In this case, low non-response suggests respondents did not have difficulty answering questions. The highest non-response was to question 24 (*My organization invests a lot of time in safety training for workers).* It seems reasonable to assume that some respondents would not know about a company's investment, rather than that the question was confusing or difficult to understand.

This high-question response is true across pilot sites and by type of respondent, suggesting all type of employees (e.g., workers, supervisors, and senior management) could relate to these questions. Further, it suggests that literacy levels (at least among those who completed) did not affect whether an individual question was answered, since all questions were consistently rated by responses.

3.1.2 High response rate

The response rate was high across all work sites where all employees were asked. In the five pilot sites, the response rate ranges from 50% to 86%. In all cases, this would be considered a high response rate.

Table 5: Response rate

Workplace	Total asked	Number of completed	Response rate
One	110	55	50%
Two	250	198	79%
Three	663	568	86%
Four	259	185	71%
Five	73	54	74%
Total	1,355	1,060	78%

3.2 Results of pilot

Reports provided to the five pilot workplaces were very similar to the charts below, grouping questions by their original themes: management commitment, communication and worker involvement, co-worker behaviour/safety systems, and safety training/equipment.

The results show that there is variation in the results even among questions that address the same theme. Results also varied by the workplace, demonstrating that the responses to these questions were measuring differences in perceptions of workplace safety.

Management commitment

Questions associated with the theme of management commitment tended to have some of the higher levels of positive agreement. Still, not all questions received the same level of agreement. For example, while about half strongly agreed with the general concept that *the safety of workers is a high priority for my organization*, only about 1 in 3 strongly agreed with the very specific activity of management listening to its staff: *my organization listens carefully to workers' ideas about improving safety* (see Figure 1).

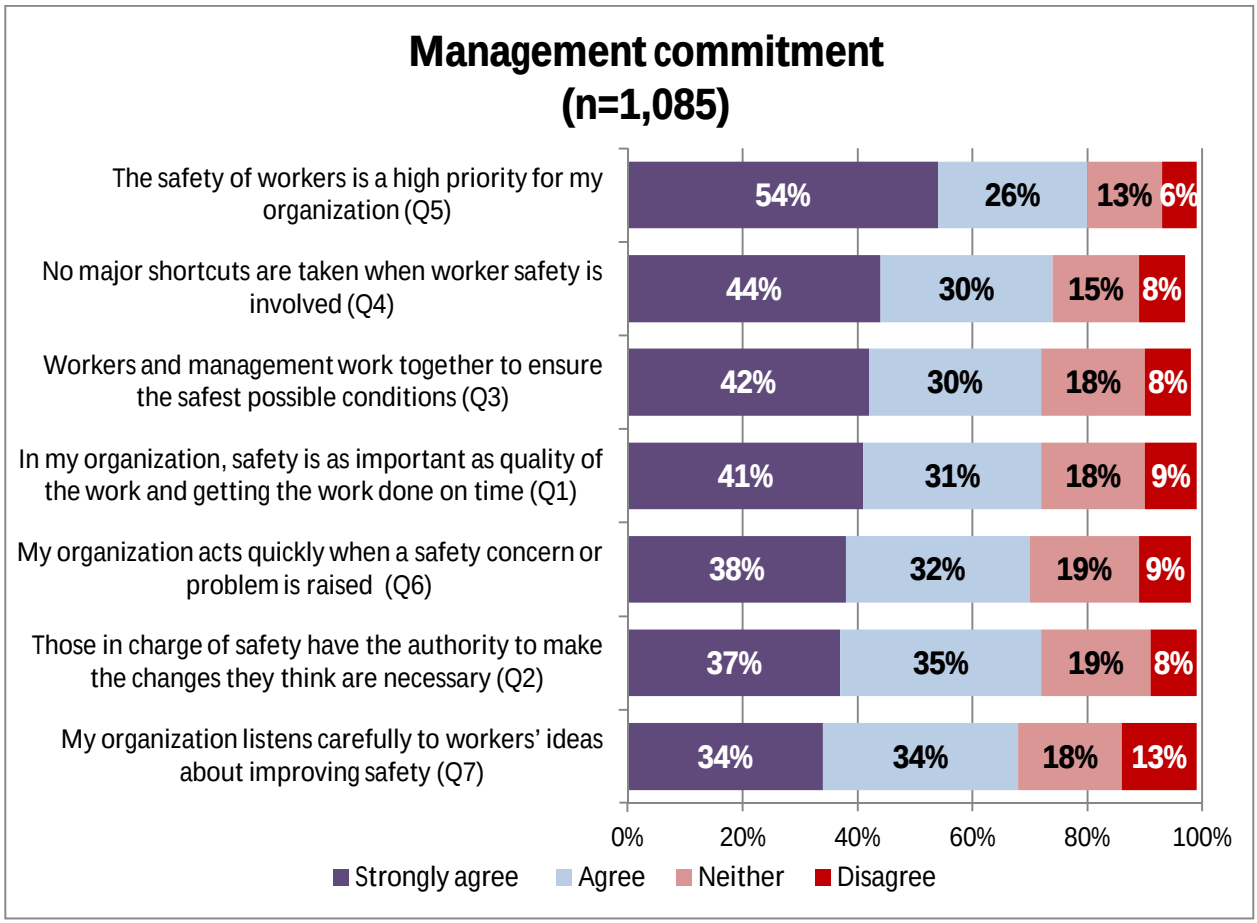

Figure 1

Communications/worker involvement

Respondents are most likely to agree with positive statements about their own behaviour, and less likely to agree with positive statements of communications and consultation from others. Overall, the statements associated with communications and worker involvement tend to get lower levels of agreement.

- About half strongly agreed that they *understand what my rights and responsibilities are for safety* and *where I work, I feel free to report safety concerns.*
- About 1 in 5 strongly agreed that *workers are regularly asked about their safety concerns* or that *workers who act safely receive positive feedback.* These two statements receive the highest level of disagreement of the 28 statement tested (with 1 in 4 either strongly or somewhat disagreeing) and the lowest level of overall agreement (strongly or somewhat just over 4 in 10). Interestingly, respondents are more likely to report receiving negative feedback, with about 1 in 3 strongly agreeing that *employees are told when they do not follow good safety practices* (and only 1 in 10 disagreeing).
- Interestingly, two very similar questions receive slightly different responses. It appears that while *formal safety inspections are regularly conducted,* fewer agree that such inspections are *regularly done to see if workers are following safety rules.* This suggests that, more often, such inspections are done without perceived consequences for workers.

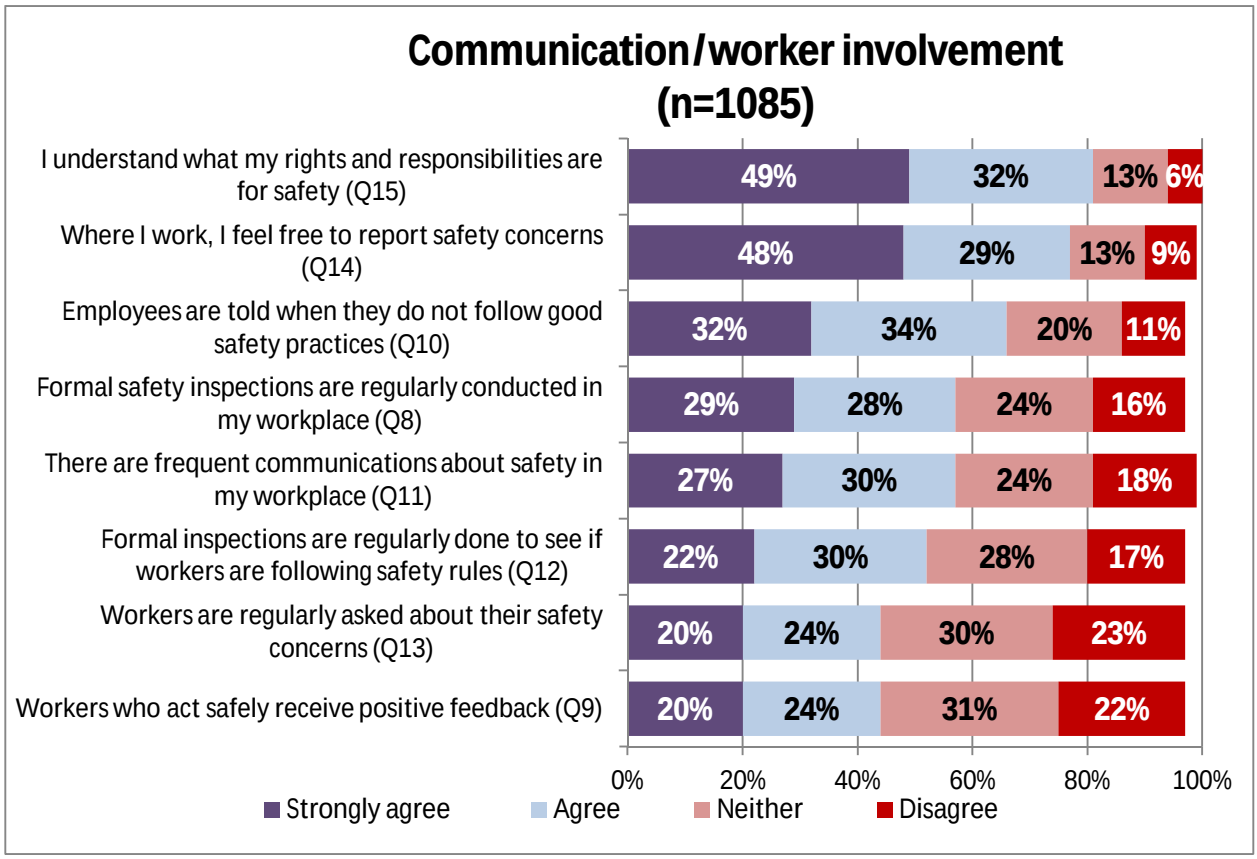

Figure 2

Co-worker behaviour / safety systems

While grouped together under co-worker behaviour and safety systems, some of these statements could just as easily fall under management commitment or communications.

- About 4 in 10 strongly agreed that *my workplace values (improvements to) safety*. This is one of the statements in which half received the statement in its simpler form and half received a longer version. (This is discussed below in Section 4.0.)
- The next three statements received similar ratings, with about 1 in 3 strongly agreeing that *new employees at my organization learn quickly that they are expected to follow safety rules (or practices), everyone has the information they need to work safely,* and that *my workplace has a safety committee that is effective at improving safety.*
- Less than 1 in 5, strongly agreed that *my workplace regularly has safety awareness events.* Another 1 in 4 disagreed with these statements. As such, it is one of the lowest rated statements of the 28 tested.

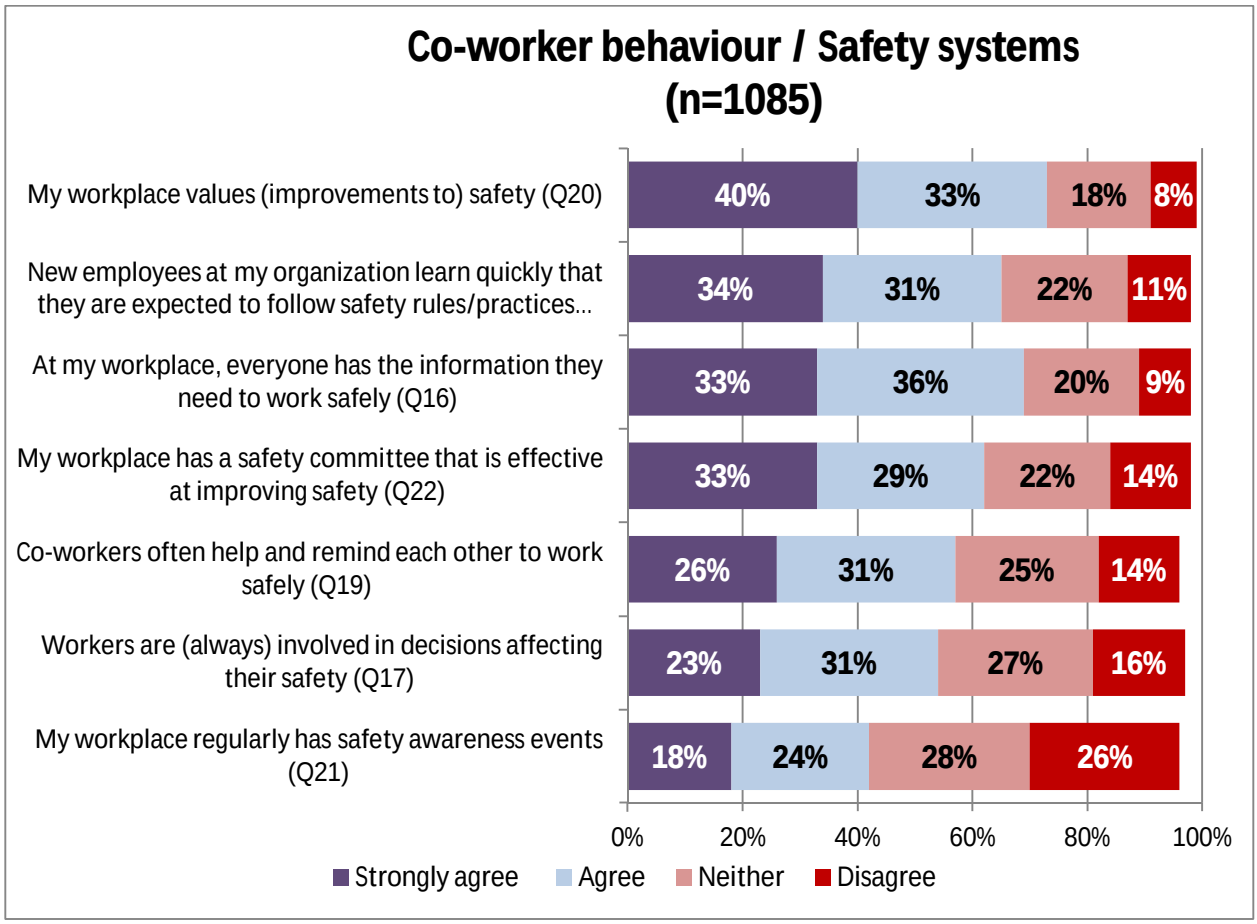

Figure 3

Safety training / equipment

Safety training and equipment grouped together ideas of training, understanding of safety rules and procedures, and use of equipment.

- About 4 in 10 strongly agreed that they are *clear on how safety rules affect me* and similarly, that *at my workplace, there are rules and procedures about how to work safely.*
- About 3 in 10 strongly agreed that *my workplace ensures I understand what my responsibilities are for safety,* that *safety is given a high priority in training programs,* and that *everyone has the tools and equipment they need to do their job safety.* In each case over 1 in 10 disagreed.
- Only about 1 in 4 strongly agreed that *my organization invests a lot of time in safety training for workers.* Conversely, in this theme, this statement has the highest level of disagreement (under 1 in 5), and as mentioned, the highest level of non-response of all questions (3.2%).

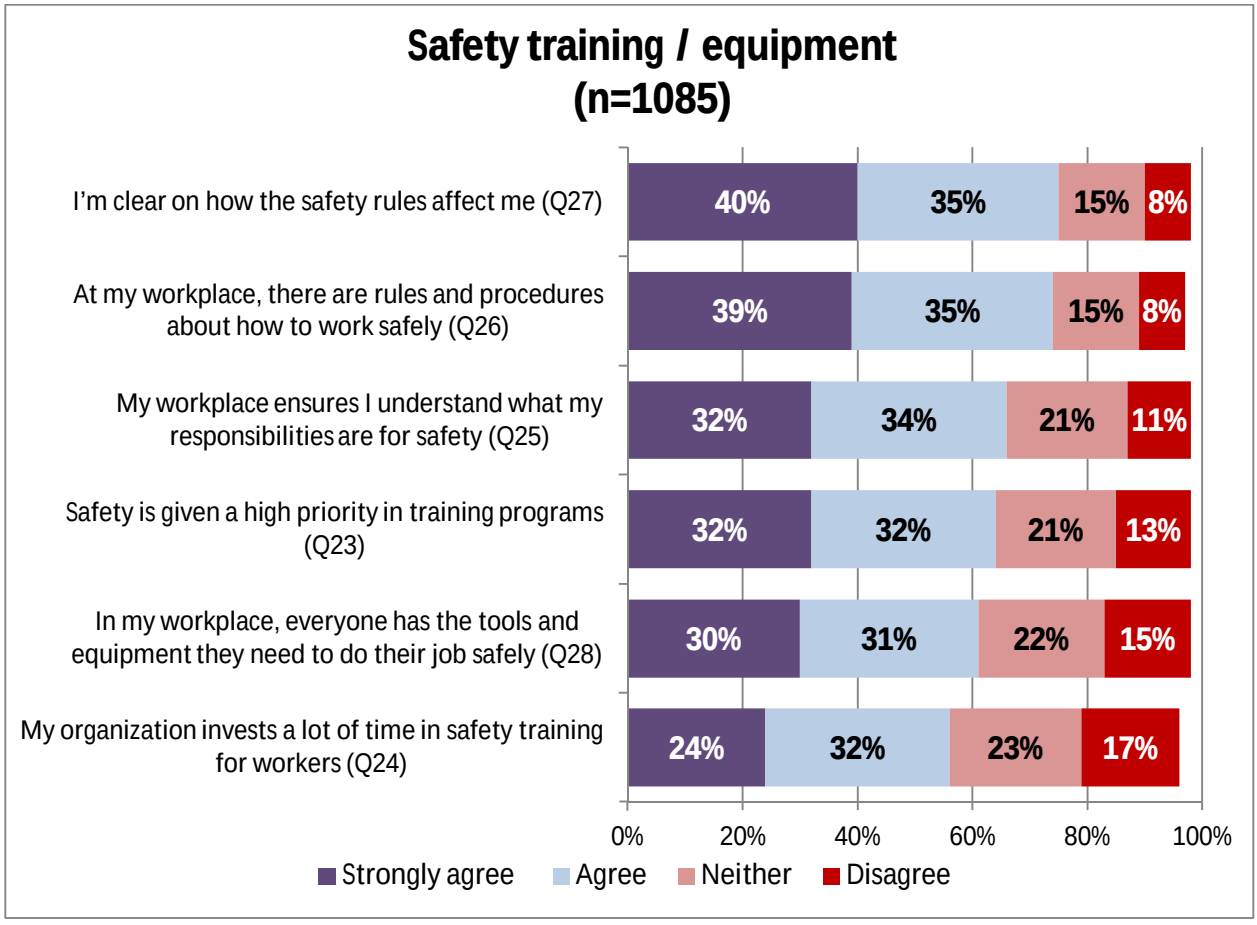

Figure 4

Summary indicators

For each of the themes, we created an overall indicator of how well a workplace was doing. This was based on the assumption that the statements under each theme were strongly related and that each contributed the same weight. In each case, the statements associated with the theme were added together (each is rated on a 1 to 5 scale) and then divided by the number of statements rated.

- **Management commitment.** The seven statements associated with management commitment receive the most positive rating. About half rated it as positive, while about 1 in 5 rated it as negative. All other indicators are much lower in terms of positive ratings.

- **Safety training / equipment.** Each of these indicators has far fewer positive ratings. Over 1 in 3 provides a positive rating of safety training and equipment, while almost 3 in 10 provide a negative rating.

- **Communication / worker involvement.** Although this indicator has a slightly greater proportion of positive rating that co-worker behaviour / work involvement, it is also the indicator with highest proportion of negative ratings (36%).

- **Co-worker behaviour / safety systems.** Again, about 3 in 10 provide positive rating, while another 3 in 10 provide a negative rating.

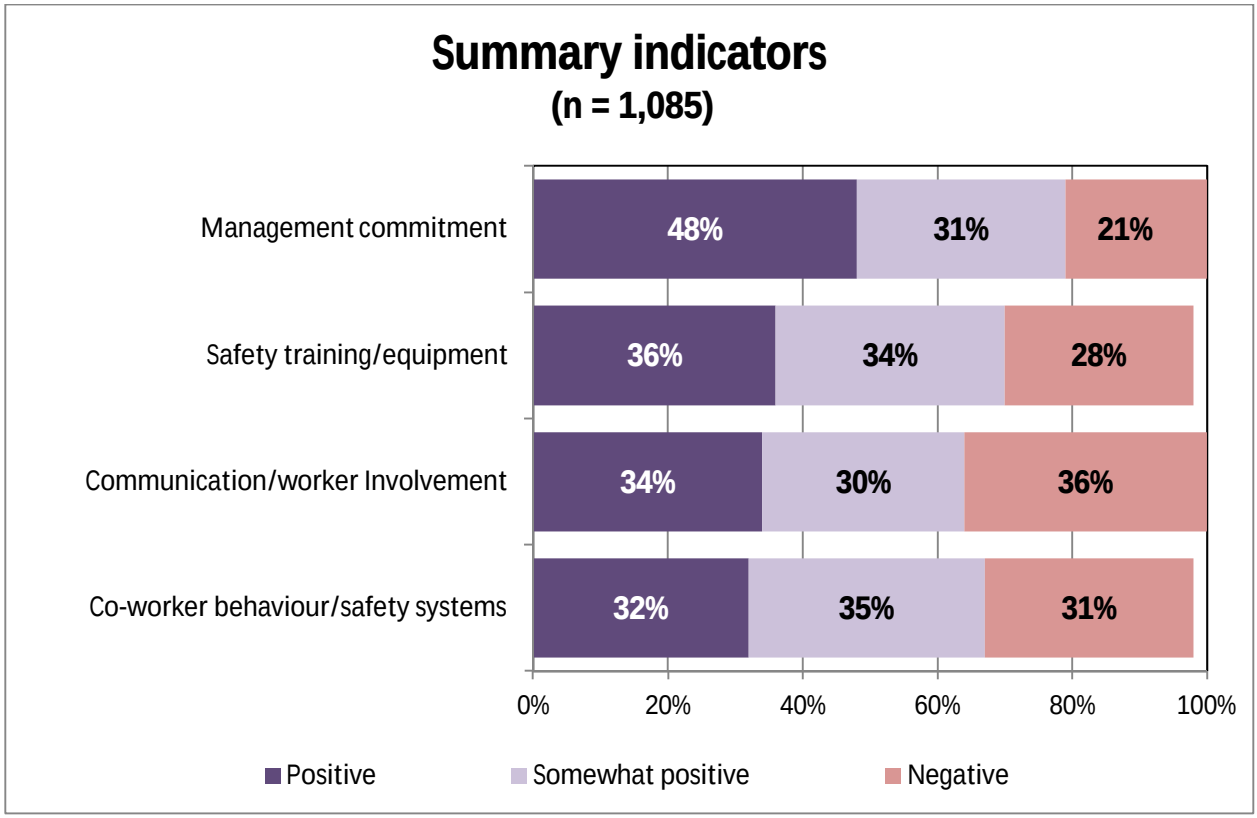

Figure 5

In each case, senior management is more likely to provide more positive ratings than those self-classified as supervisors/middle management, and in turn, supervisors are more positive than those classified as workers.

While the statistical significance of the differences among the three groups is often weak, the analysis appears to demonstrate that an individual's position in an organization does influence their perception of safety within the workplace.[3] This suggests that going forward analysis needs to examine the results by these subgroups of employee types. Ideally, the perceived safety climate in a workplace should be similar at all levels of the organization. If it is not, it suggests that at a minimum there are communication issues that must be addressed.

See Figure 6 to 9 on the next page.

[3] The same pattern is found in all individual work sites of the pilot, except one where specific knowledge of supervisors/management may account for them having a more negative perception than workers.

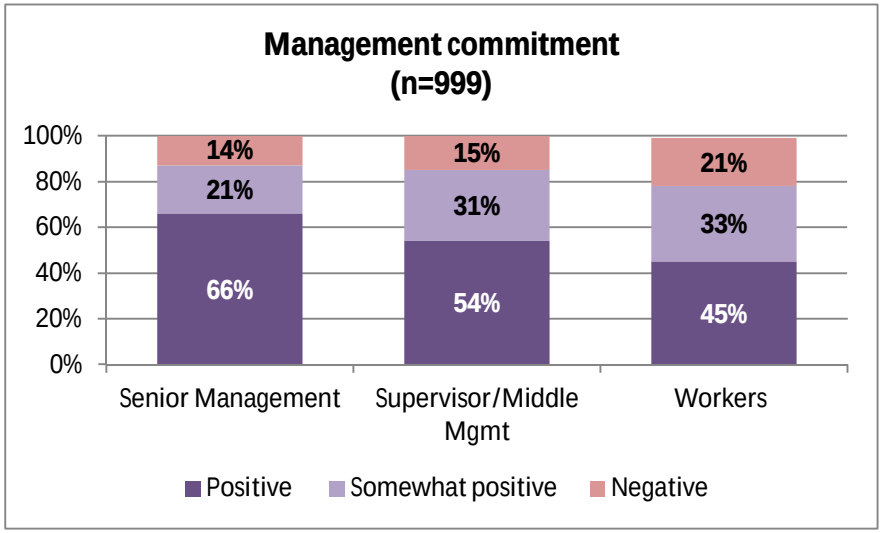

Figure 6

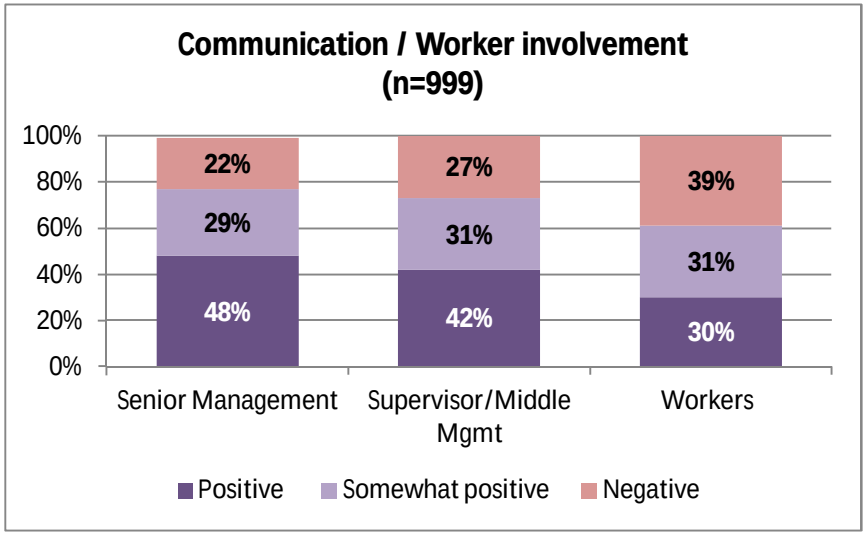

Figure 8

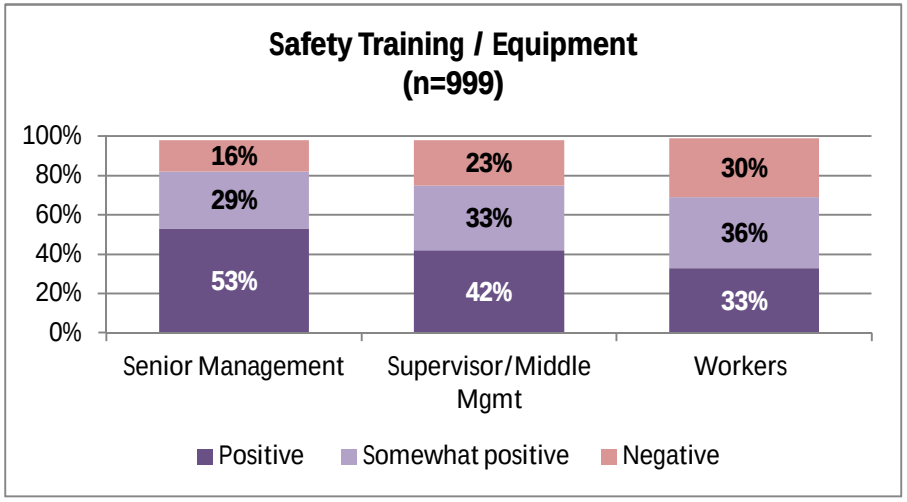

Figure 7

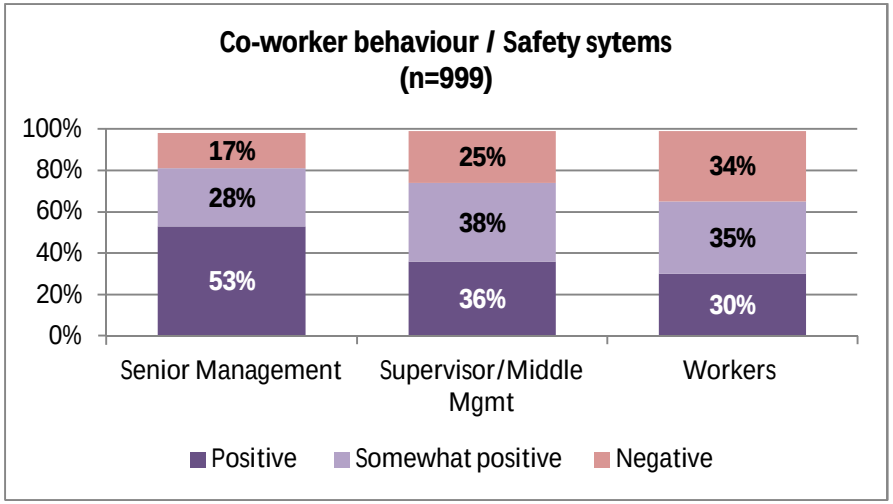

Figure 9

3.3 Using results as leading indicators

While the pilot did not occur in workplaces from all types of industries, we did include a mix of heavy and light manufacturing and service industries. Each of these organizations is below the provincial average in terms of the time-loss injury rate (3.2), and the all-injury rate (6.4) with one exception in the latter case. The all-injury rate includes claims that were made that did not take time away work. Using the average scores from the survey for each workplace, we wanted to understand if the workplace rating appears to correlate with the injury rates.

The two organizations with the highest time-loss injury rate tended to receive lower survey scores than those with lower rates. Higher time-loss injury rates are associated with lower scores in the survey, both overall and by each of the four theme areas.

- Workplace 5 of the pilot had no time-loss injuries in the last three years and only a very low all-injury rate (1.44). Reflecting this, workplace 5 had the highest average scores overall, and for each of the four theme areas: Management commitment (Mgmt), Communication / worker involvement (Comm'n), Co-worker behaviour and safety systems (Co-worker) and Safety training and equipment (Training).

- Workplace 1 of the pilot had no time-loss injuries in the last three years, but a very high all-injury rate (7.68, which above the provincial average). However, it has the second highest survey scores, suggesting time-loss injuries play a less significant role in employees' assessment of safety climate in a workplace.

- Workplace 2 and 3 have the highest time-loss injury rates (2.51 and 1.94) respectively. These two sites also have the lowest scores among the pilot sites, although the lowest average scores are assigned to the workplace with a slightly lower time-loss injury rate (but a slightly higher all-injury rate). This might be for a number of reasons, including that nature and timing of the time-loss injuries and the workplace responses to these injuries.

Table 6 shows the three-year average in terms of time-loss injury rates and all-injury rates (lower is better) and the average scores overall and by the four themes (higher averages are better).

Table 6: Validity across all industries

Workplace	SAFE Work Manitoba (3 years average)		Average Scores				
	Time-loss injury rate	All-injury rate	Out of 5	(Out of 4)			
			All	Mgmt	Comm'n	Co-worker	Training
Manitoba	3.2	6.4	n/a	n/a	n/a	n/a	n/a
Five (n=54)	0.00	1.44	4.59	3.78	3.80	3.76	3.72
One (n=55)	0.00	7.68	4.24	3.51	3.31	3.33	3.35
Four (n=184)	0.71	1.60	3.93	3.30	3.07	2.93	3.13
Three (n=568)	1.94	5.85	3.66	3.11	2.62	2.70	2.74
Two (n=198)	2.51	5.38	3.90	3.15	3.02	2.98	3.15

Generally, the lower the injury rate, especially the time-loss injury rate (the kind that employees are most likely to be aware of), the lower the scores from the survey in all dimensions. Table 7 ranks the workplaces from highest to lowest in terms of these various indicators.

Table 7: Validity across all industries: Rank order based on injury rates

Workplace	SAFE Work Manitoba (3 years average)		Ranking of average scores				
	Time-loss injury rate	All-injury rate	All	Mgmt	Comm'n	Co-worker	Training
Five (n=54)	1	1	1	1	1	1	1
One (n=55)	1	5	2	2	2	2	2
Four (n=184)	3	2	3	3	3	4	4
Three (n=568)	4	4	5	5	5	5	5
Two (n=198)	5	3	4	4	4	3	3

Table 8 examines known injury rates for the five pilot test workplaces and two other pieces of information gathered on the questionnaire.

- **Attitudes towards injuries.** We asked respondents to rate their level of agreement with this statement: "Workplace injuries and accidents are an inevitable part of life." The lower the average score the less likely respondents are to agree with this statement. Those most likely to agree that workplace injuries and accidents are inevitable are also those workplaces with the highest time-loss injury rates.

- **Workplace risk**. We asked respondents: "Without any safety procedures in place, what would be the risk of injury to employees at your workplace?" The higher the average, the more likely respondents are to consider their workplace to be high risk for injury if safety procedures were not in place. Interestingly, the perception that a workplace is high risk for injury is not related to the actually injury rates. While workplace 2 has the highest average score (and is the workplace with the highest time-loss injury rate), it is closely followed by workplace 5, which has the lowest injury rate.

Table 8: Validity across all industries

Workplace	SAFE Work Manitoba (3 years average)		Average Scores	
	Time-loss injury rate	All-injury rate	Attitude to Injuries	Workplace risk
Manitoba	3.2	6.4	n/a	n/a
Five (n=54)	0	1.44	1.87	4.33
One (n=55)	0	7.68	2.56	3.76
Four (n=185)	0.71	1.6	2.30	3.01
Three (n=568)	1.94	5.85	2.77	3.90
Two (n=198)	2.51	5.38	2.77	4.37

At each pilot site, we asked the most senior safety representative to complete the Institute for Work and Health (IWH) 8-question survey. Only three of the five pilot sites completed and returned this questionnaire.

The results are far from conclusive. The representative from the workplace with the lowest injury rate gave itself a high score on each of the eight questions. The mean score is 88%, suggesting a very high conformance to each of the eight factors contributing to a safe workplace. Conversely, the site with the highest time-loss injury rate gave itself a much lower mean score (58%). However, the site with the second lowest time-loss injury rate gave itself the highest score of all (98%), suggesting the judgement of one individual within a workplace may not be an accurate reflection of either the workplace injury rate nor the perception of employees overall.

See Table 9.

Table 9: Validity across all industries

Workplace	SAFE Work Manitoba (3 year average)		IWH 8 question
	Time-loss injury rate	All-injury rate	
Manitoba	3.2	6.4	
Five (n=54)	0	1.44	.88
One (n=55)	0	7.68	n/a
Four (n=185)	0.71	1.6	n/a
Three (n=568)	1.94	5.85	.98
Two (n=198)	2.51	5.38	.58

4.0 Testing of different question versions

4.1 Question wording

Two versions of four questions were tested. These versions had only slightly different wordings, but we were concerned the difference may have a significant impact on how respondents answered.

Table 10: Question versions

Question	Reason
In my organization safety is (at least) as important as quality of the work and getting the work done on time. (Q1)	One version included "at least"; the other did not. The concern was that the phrase "at least" is wordy and may be difficult for respondents with low English literacy levels to understand.
Workers are always involved in decisions affecting their safety. (Q17)	One version include "always," the other did not. The absolute nature of "always" might result in lower than representative scores.
New employees at my organization learn quickly that they are expected to follow safety rules/practices (Q18)	One version ended with "rules," the other with "practices." The thought was that procedures included more than rules, but the concept of rules is easier to understand.
My workplace values (improvements to) safety. (Q20)	One version included "improvements to," the other did not. Improvements were thought to be a more difficult standard that fewer would agree to.

4.2 Comparison of different wording

Cross-tabulation analysis will tell us if responses are different depending on the wording used. To ensure variability is not the result of different types of employees, we have performed this analysis only among one class of employees: workers.

Interestingly, while there is some indication that differences exists, none of these meet PRA's definition statistical significance, that is, a chi square p value of .000 and a Cramer's V of .150 or higher; however, one comes close.[4] There is a pattern: the addition of words tends to result in more negative ratings. Similarly, the use of the word "rules" rather than "practices" tends to receive a lower rating, However, with the exception of the last case, which is borderline significant, these results are suggestive but not conclusive.

[4] The difference between practices and rules is almost statistically significant. The statement reads: **New employees at my organization learn quickly that they are expected to follow safety practices/rules.**

Table 11: Rating of different version of the same question: WORKERS		
Question	**Version 1 (n=301)**	**Version 2 (n=338)**
In my organization safety is (at least) as important as quality of the work and getting the work done on time.	**Is as important**	**Is at least as important**
Strongly agree (5)	45%	33%
4	32%	33%
3	15%	20%
2	4%	7%
Strongly disagree (1)	3%	6%
	1%	2%
Total	100%	100%
Pearson's chi sq. sig.	.019	
Cramer's V	0.145	
Workers are (always) involved in decisions affecting their safety	**Involved**	**Always involved**
Strongly agree (5)	24%	18%
4	32%	29%
3	25%	30%
2	11%	15%
Strongly disagree (1)	4%	7%
No response	4%	2%
Total	100%	100%
Pearson's chi sq. sig.	.018	
Cramer's V	0.147	
New employees at my organization learn quickly that they are expected to follow safety practices/rules.	**Practices**	**Rules**
Strongly agree (5)	41%	26%
4	26%	36%
3	21%	24%
2	6%	9%
Strongly disagree (1)	3%	3%
No response	3%	2%
Total	100%	100%
Pearson's chi sq. sig.	.002	
Cramer's V	.174	
My workplace values (improvements to) safety	**Values safety**	**Values improvements to safety**
Strongly agree (5)	45%	33%
4	31%	36%
3	17%	20%
2	4%	6%
Strongly disagree (1)	2%	4%
No response	2%	2%
Total	100%	100%
Pearson's chi sq. sig.	.027	
Cramer's V	.141	

This suggests that for the most part the two versions can be used interchangeably, but that in all cases version 2 will be more restrictive and receive slightly lower ratings. Based on this, we recommend the following wording.

- *In my organization safety is as important as quality of the work and getting the work done on time*. (Q1) We recommend leaving out the phase "at least" which shortens the question, making it easier to understand.

- *Workers are always involved in decisions affecting their safety.* (Q17) Include the word "always" to make the question more restrictive and less easy to agree with.

- *New employees at my organization learn quickly that they are expected to follow safety rules* (Q18). The choice of "rules" rather than "practices" is twofold. The concept of rules is easier to understand, and provides a clear guideline for respondents. Rules generally either exist or they do not. Practices may be followed but they may not be grounded in any formal requirements by the company.

- *My workplace values safety.* In this case, we suggest using the statement with fewer words.

5.0 Reducing the number of questions

One of the goals of this research is to reduce the number of questions required to reliably measure a workplace's safety climate.

5.1 Factor analysis

Factor analysis is a data reduction technique that produces a series of "factors" that lump together questions (or in this case, statements) based on how the responses correlate. If the themes identified in the construction of the pilot questionnaire were highly correlated with each another we would then expect the analysis to produce four factors.

Table 12 shows an example of the factor analysis of all 28 statements among those who identified themselves as workers; it produced three factors which draw on statements from each of the four themes.

- **Communication.** Factor 1 appears to involve most of the statements that have to do with some form of communication around safety, including: inspections; being asked about safety concerns; frequency of communication about safety; awareness of safety events; feedback about acting safely; time in safety training; being involved in decisions affecting workers' safety; being expected to learn safety procedures quickly; an effective safety committee; helping and reminding to work safely amongst co-workers, and valuing safety.

- **Management behaviour.** Factor 2 groups together statements about management's support for safety in the workplace. It includes: management and workers working together; safety being a high priority; no major shortcuts are taken; safety is as important as getting the work done; listening to workers' ideas about improving safety; acting quickly when a safety concern or problem is raised; and that those responsible have the authority to make necessary changes. Factor 2 draws statement entirely from the theme identified as management commitment.

- **Employee behaviour.** Factor 3 groups together statements about attitudes, behaviours, and training of employees. It includes: understanding of the rules that affect employees; understanding of rights and responsibilities; rules and procedures about how to work safely; safety is given a high priority in training programs; everyone has the information, tools and equipment they need; and workers feel they can report safety concerns.

Table 12: Results of Factor Analysis: Workers			
	Component Matrix		
	1	2	3
Q12. Formal inspections are regularly done to see if workers are following safety rules.	.798		
Q13. Workers are regularly asked about their safety concerns.	.768		
Q11. There are frequent communications about safety in my workplace.	.754		
Q21. My workplace regularly has safety awareness events.	.747		
Q8. Formal safety inspections are regularly conducted in my workplace.	.710		
Q9. Workers who act safely receive positive feedback.	.707		
Q24. My organization invests a lot of time in safety training for workers.	.665		
Q17. Workers are (always) involved in decisions affecting their safety.	.634		
Q18. New employees at my organization learn quickly that they are expected to follow safety practices / rules.	.570		
Q22. My workplace has a safety committee that is effective at improving safety.	.570		
Q10. Employees are told when they do not follow good safety practices.	.541		
Q19. Co-workers often help and remind each other to work safely.	.509		
Q20. My workplace values (improvements to) safety.	.502		
Q3. Workers and management work together to ensure the safest possible conditions.		.765	
Q5. The safety of workers is a high priority for my organization.		.755	
Q4. No major shortcuts are taken when worker safety is involved.		.745	
Q1. In my organization safety is (at least) as important as quality of the work and getting the work done on time.		.707	
Q7. My organization listens carefully to workers' ideas about improving safety.		.700	
Q6. My organization acts quickly when a safety concern or problem is raised.		.690	
Q2. Those in charge of safety have the authority to make the changes they think are necessary.		.631	
Q27. I clear on how the safety rules affect me.			.825
Q15. I understand what my rights and responsibilities are for safety.			.768
Q26. At my workplace, there are rules and procedures about how to work safely.			.679
Q25. My workplace ensures I understand what my responsibilities are for safety.			.633
Q23. Safety is given a high priority in training programs.			.568
Q16. At my workplace, everyone has the information they need to work safely.			.544
Q14. Where I work, I feel free to report safety concerns.			.491
Q28. In my workplace everyone has the tools and equipment they need to do their job safely.			.449

Depending on the type of respondent (i.e.., workers, supervisors/middle management, or senior management), the factors are slightly different. Overall, three factors are identified, although the arrangement of the variables is slightly different than among workers alone.

For supervisors/middle management and senior management, the analysis identified four factors. While there is crossover among all types, depending on the employee type (worker, supervisor/middle management, and senior management) the statements included in the factors can be different. This likely reflects their position in the organization and not any inherent problem with the statements.

Table 13: Results of Factor Analysis by type				
Statement	**Type**			
	Overall (n=1,085)	**Workers (n=639)**	**Supervisors (n=302)**	**Senior management (n=58)**
	Factor			
Q12. Formal inspections are regularly done to see if workers are following safety rules.	1	1	3	2
Q13. Workers are regularly asked about their safety concerns.	1	1	3	3
Q11. There are frequent communications about safety in my workplace.	1	1	3	2
Q8. Formal safety inspections are regularly conducted in my workplace.	1	1	3	2
Q9. Workers who act safely receive positive feedback.	1	1	3	2
Q21. My workplace regularly has safety awareness events.	1	1	1	3
Q24. My organization invests a lot of time in safety training for workers.	1	1	1	3
Q22. My workplace has a safety committee that is effective at improving safety.	1	1	1	3
Q17. Workers are (always) involved in decisions affecting their safety.	1	1	1	3
Q10. Employees are told when they do not follow good safety practices.	1	1	2	1
Q27. I'm clear on how the safety rules affect me.	2	3	2	4
Q15. I understand what my rights and responsibilities are for safety.	2	3	2	4
Q26. At my workplace, there are rules and procedures about how to work safely.	2	3	1	1
Q25. My workplace ensures I understand what my responsibilities are for safety.	2	3	1	4
Q18. New employees at my organization learn quickly that they are expected to follow safety practices / rules.	2	1	1	2
Q23. Safety is given a high priority in training programs.	2	3	1	3
Q19. Co-workers often help and remind each other to work safely.	2	1	1	1
Q16. At my workplace, everyone has the information they need to work safely.	2	3	1	2
Q14. Where I work, I feel free to report safety concerns.	2	3	2	1
Q20. My workplace values (improvements to) safety.	2	1	1	3
Q28. In my workplace everyone has the tools and equipment they need to do their job safely.	2	3	1	2
Q5. The safety of workers is a high priority for my organization.	3	2	4	1
Q4. No major shortcuts are taken when worker safety is involved.	3	2	4	4
Q3. Workers and management work together to ensure the safest possible conditions.	3	2	4	4
Q1. In my organization safety is (at least) as important as quality of the work and getting the work done on time.	3	2	4	4
Q6. My organization acts quickly when a safety concern or problem is raised.	3	2	4	1
Q2. Those in charge of safety have the authority to make the changes they think are necessary.	3	2	4	4
Q7. My organization listens carefully to workers' ideas about improving safety.	3	2	1	1

5.2 Question reduction (Cronbach's Alpha)

Cronbach's alpha is a common measure of internal consistency — that is, how closely related a set of items are as a group. It is considered to be a measure of scale reliability. A "high" value for alpha does not imply that the measure is unidimensional, just that they are highly correlated.

This analysis produces a Cronbach's alpha, the higher the score (1 is the highest) the greater the reliability of the scale. A scale with a result of .9 or higher normally means there are redundancies (i.e., items are measuring the same thing in a slightly different way) within the series, and questions could be dropped without affecting its reliability. The test also shows the resulting alpha statistic when a question is removed from the series. As such, it provides a method of reducing the number of questions while maintaining that consistency.

Using the overall data and the three factors identified, Table 14 shows that the Cronbach's alpha is very high (.941), suggesting these questions are highly consistent; indeed, the series includes redundancies. If any one of these statements is removed, the Cronbach's alpha suggests it would have limited impact on the internal consistency of the set.

- If we delete question 8, the Cronbach's alpha would drop only slightly from .941 to .935. Dropping any of these statements would result in Cronbach's alpha of no lower than .932.

- This suggests that any of these statements can be deleted from the set with minimal impact on the over reliability of the question set.

Table 14: Results of Cronbach's alpha: overall

Cronbach's alpha for factor 1:		**.941**
	Squared Multiple Correlation	**Cronbach's Alpha if Item Deleted**
Q8. Formal safety inspections are regularly conducted in my workplace.	.647	.935
Q9. Workers who act safely receive positive feedback.	.554	.936
Q10. Employees are told when they do not follow good safety practices.	.449	.940
Q11. There are frequent communications about safety in my workplace.	.692	.932
Q12. Formal inspections are regularly done to see if workers are following safety rules.	.711	.932
Q13. Workers are regularly asked about their safety concerns.	.673	.933
Q17. Workers are (always) involved in decisions affecting their safety	.567	.936
Q21. My workplace regularly has safety awareness events.	.589	.936
Q22. My workplace has a safety committee that is effective at improving safety.	.586	.936
Q24. My organization invests a lot of time in safety training for workers.	.635	.934

Similarly, when examining the results of the Cronbach's alpha for factor 2 of overall sample, the alpha is again very high (.938). Deleting any of the questions does not reduce the alpha to less than .926.

Table 15: Results of Cronbach's alpha: overall		
Cronbach's alpha for factor 2:		**.938**
	Squared Multiple Correlation	**Cronbach's Alpha if Item Deleted**
Q14. Where I work, I feel free to report safety concerns.	.516	.933
Q15. I understand what my rights and responsibilities are for safety.	.538	.935
Q16. At my workplace, everyone has the information they need to work safely.	.608	.930
Q18. New employees at my organization learn quickly that they are expected to follow safety practices / rules.	.632	.929
Q19. Co-workers often help and remind each other to work safely.	.532	.932
Q20. My workplace values (improvements to) safety.	.597	.930
Q23. Safety is given a high priority in training programs.	.655	.928
Q25. My workplace ensures I understand what my responsibilities are for safety.	.733	.926
Q27. I'm clear on how the safety rules affect me.	.664	.929
Q28. In my workplace everyone has the tools and equipment they need to do their job safely.	.538	.933

Factor 3, which groups statements about management together, has an alpha of .909. Removing any of the questions from the series, results in the alpha statistic dropping to no less than .889 (still very high).

Table 16: Results of Cronbach's alpha: overall		
Cronbach's alpha for factor 3:		**.909**
	Squared Multiple Correlation	**Cronbach's Alpha if Item Deleted**
Q1. In my organization safety is (at least) as important as quality of the work and getting the work done on time.	.449	.901
Q2. Those in charge of safety have the authority to make the changes they think are necessary.	.392	.905
Q3. Workers and management work together to ensure the safest possible conditions.	.616	.889
Q4. No major shortcuts are taken when worker safety is involved.	.541	.895
Q5. The safety of workers is a high priority for my organization.	.603	.890
Q6. My organization acts quickly when a safety concern or problem is raised.	.634	.890
Q7. My organization listens carefully to workers' ideas about improving safety.	.625	.891

5.3 Question reduction

Based on this analysis, we have a great deal of flexibility in the statements that could be included in a climate safety survey. An example of 12 statements that could be retained are shown in Table 17. However, a different set involving more or less statements will produce similar results.

Table 17: Set of statements

Factor	Pilot questions	Recommended
1	Q12. Formal inspections are regularly done to see if workers are following safety rules.	Q12. Formal inspections are regularly done to see if workers are following safety rules.
	Q13. Workers are regularly asked about their safety concerns.	Q13. Workers are regularly asked about their safety concerns.
	Q11. There are frequent communications about safety in my workplace.	Q11. There are frequent communications about safety in my workplace.
	Q8. Formal safety inspections are regularly conducted in my workplace.	
	Q9. Workers who act safely receive positive feedback	
	Q21. My workplace regularly has safety awareness events.	
	Q24. My organization invests a lot of time in safety training for workers.	
	Q22. My workplace has a safety committee that is effective at improving safety.	
	Q17. Workers are (always) involved in decisions affecting their safety.	Q17. Workers are always involved in decisions affecting their safety.
	Q10. Employees are told when they do not follow good safety practices.	
2	Q27. I'm clear on how the safety rules affect me.	
	Q15. I understand what my rights and responsibilities are for safety.	Q15. I understand what my rights and responsibilities are for safety.
	Q26. At my workplace, there are rules and procedures about how to work safely.	
	Q25. My workplace ensures I understand what my responsibilities are for safety.	Q25. My workplace ensures I understand what my responsibilities are for safety.
	Q18. New employees at my organization learn quickly that they are expected to follow safety practices / rules.	
	Q23. Safety is given a high priority in training programs.	
	Q19. Co-workers often help and remind each other to work safely.	Q19. Co-workers often help and remind each other to work safely.
	Q16. At my workplace, everyone has the information they need to work safely.	
	Q14. Where I work, I feel free to report safety concerns.	Q14. Where I work, I feel free to report safety concerns.
	Q20. My workplace values (improvements to) safety.	
	Q28. In my workplace everyone has the tools and equipment they need to do their job safely.	Q28. In my workplace everyone has the tools and equipment they need to do their job safely.
3	Q5. The safety of workers is a high priority for my organization.	Q5. The safety of workers is a high priority for my organization.
	Q4. No major shortcuts are taken when worker safety is involved.	
	Q3. Workers and management work together to ensure the safest possible conditions.	
	Q1. In my organization safety is (at least) as important as quality of the work and getting the work done on time	Q1. In my organization safety is as important as quality of the work and getting the work done on time.
	Q6. My organization acts quickly when a safety concern or problem is raised.	
	Q2. Those in charge of safety have the authority to make the changes they think are necessary.	

Table 17: Set of statements		
Factor	**Pilot questions**	**Recommended**
	Q7. My organization listens carefully to workers' ideas about improving safety.	Q7. My organization listens carefully to workers' ideas about improving safety.

Using the overall data, these 12 statements result in a single factor and similar average scores than all 28 statements. The Cronbach's alpha also remains very high (.933). Including an addition 4 questions (Q9, Q22, Q18, Q2 for 16 in total), produces similar results but produces two factors.

Table 18: Ranking by scores by statements					
	SAFE Work Manitoba (3 years average)		**Average Scores Pilot survey (statements used)**		
Workplace	**Time loss injury rate**	**All injury rate**	**28**	**16**	**12**
Manitoba	3.2	6.4	n/a	n/a	n/a
Five (n=54)	0.00	1.44	4.59	4.58	4.59
One (n=55)	0.00	7.68	4.24	4.22	4.25
Four (n=185)	0.71	1.60	3.93	3.90	3.94
Three (n=568)	1.94	5.85	3.66	3.64	3.65
Two (n=198)	2.51	5.38	3.90	3.84	3.86

5.4 SAFE Work selection of questions

Since the statements included appear not to have a great impact on the outcome of the average scores, in consultation with SAFE Work Manitoba we tested two other statement sets. These sets include questions that not only measure the safety climate, but are seen as being particularly useful by SAFE Work in monitoring aspects of safety in the workplace.

The two versions are very similar:

- Version 1 includes 11 statements, with three unique statements (Q5, Q22, Q23).
- Version 2 includes 10 statements, with two unique statements (Q4, Q24).

Table 19: SAFE Work set of statements		
Question #	**Version 1**	**Version 2**
Q1	In my organization, safety is (at least) as important as the quality of the work and getting the work done on time.	In my organization, safety is (at least) as important as the quality of the work and getting the work done on time.
Q4		No major shortcuts are taken when worker safety is involved.
Q5	The safety of workers is a high priority for my organization.	
Q8	Formal safety inspections are regularly conducted in my workplace.	Formal safety inspections are regularly conducted in my workplace.
Q11	There are frequent communications about safety in my workplace.	There are frequent communications about safety in my workplace.
Q13	Workers are regularly asked about their safety concerns.	Workers are regularly asked about their safety concerns.
Q17	Workers are (always) involved in decisions affecting their safety.	Workers are (always) involved in decisions affecting their safety.
Q18	New employees at my organization learn quickly that they are expected to follow safety practices/rules.	New employees at my organization learn quickly that they are expected to follow safety practices/rules.
Q22	My workplace has a safety committee that is effective at improving safety.	
Q23	Safety is given a high priority in training programs.	
Q24		My workplace invests a lot of time in safety training for workers.
Q26	At my workplace, there are rules and procedures about how to work safely	At my workplace, there are rules and procedures about how to work safely.
Q28	In my workplace, everyone has the tools and equipment they need to do their job safely.	In my workplace, everyone has the tools and equipment they need to do their job safely.

We tested both versions using Factor Analysis and Cronbach's Alpha.

- Both Version 1 and Version 2 result in a single factor. The Cronbach's Alpha for both remains very high: .931 for Version 1 and .922 for Version 2.

The following is shown in Table 20 below:

- Version 1, involving 11 statements, results in average scores that are very similar to those for all 28 statements.

- The averages for Version 2 are lower, but the order from highest to lowest workplace remains the same as that for all 28 statements and Version 1 with 11 statements. Indeed, for each workplace tested, the average drops from Version 1 to Version 2 by about 0.4 (ranging from 0.38 to 0.45). For each workplace, this represents a 10% drop in the average score (ranging from 9.7% to 10.6%). The decline in the average appears to reflect the fact that the statements chosen for Version 2 tend to generate more negative responses from individuals in all workplaces.

Table 20: Average rating by workplace using different statement sets			
Workplace	**Average Scores (statements used)**		
	All (28 statements)	**Version 1 (11 statements)**	**Version 2 (10 statements)**
Five (n=54)	4.59	4.63	4.18
One (n=55)	4.24	4.19	3.78
Four (n=185)	3.93	3.94	3.53
Two (n=198)	3.90	3.90	3.50
Three (n=568)	3.66	3.59	3.21

Another consideration is whether these versions are affected by the wording of the questions used. In both Versions 1 and 2, three statements were included that were piloted with two different wordings (see Table 19, the alternative wording is in red). We tested to see what impact the different wording has on Version 1 statement set and Version 2 statement set. To ensure we are comparing appropriately, in calculating the averages we have only included those who self-identified as workers.

- Wording 1 excludes the words "at least" and "always," and uses "practices" rather than "rules." Conversely, Wording 2 includes words "at least" and "always," and uses "rules" rather than "practices." As mentioned earlier, respondents were more likely to agree when Wording 1 was used and more likely to disagree when Wording 2 was used.

- In each case, regardless of all 28 statements are used, the 11 statements of Version 1 or the 10 statements of Version 2, the average scores for Wording 1 were higher than Wording 2. That difference in these averages is about 0.2 in each case.

- As we saw above, the average scores for Version 1 are higher than Version 2. Looking at the decline in average scores from Version 1 to Version 2, it is consistent for both Wording 1 (-.40) and Wording 2 (-.38).

Table 21: Average rating by statement wording using different statement sets			
All workplaces	**Average scores (statements used – workers only)**		
	All (28 statements)	**Version 1 (11 statements)**	**Version 2 (10 statements)**
Wording 1	3.89	3.87	3.47
Wording 2	3.69	3.64	3.26
Overall	3.79	3.75	3.36

While the various question sets and versions may result in slightly different average scores, these scores tend to be consistent (relatively to other workplaces or wordings). This suggests that either of these question sets could be used, with the expectation that Version 2 would provide lower average scores and Version 1 higher average scores. If both sets are used for different purposes, workplaces using the same version could be compared, but making comparisons across the two versions would misrepresent the relative safety climate of each.

Based on these findings, and working with SAFE Work Manitoba, a final version of the questionnaire was developed and will be the basis of all workplace climate safety surveys (see Appendix B).

6.0 Roll out of Safety Climate Survey

6.1 General approach

For the survey to be a success, a workplace needs to understand the benefits of participating in the survey, knowing the benefits they need to be supportive of the survey so that a high response is achieved.

A workplace will have the option of surveying their employees by using an online survey, a paper survey, or a combination of these types of questionnaires. An online survey is the least amount of work for both SAFE Work Manitoba and the organization. However, it is only viable if all employees have a workplace email address and have regular access to that email. It should be expected that many workplaces will use a combination of both online and paper.

6.2 Guide for SAFE Work Manitoba

A guide for SAFE Work Manitoba representatives can be found in Appendix D.

6.2.1 Goals of the survey research

The long term goal of the survey research is to provide both SAFE Work Manitoba and organizations with information that will help make workplaces safer. SAFE Work Manitoba should be able to use the results of the safety climate survey to identify workplaces that have a higher chance of time-loss injury. While the survey research benefits SAFE Work Manitoba by providing it with more information about a particular organizations' safety climate, it should also benefit the organization itself. However, this depends on the workplace and the person responsible.

6.2.2 Engaging workplaces

It is important to involve the most senior person (responsible for safety) within an organization. This will help ensure that the organization is onside and will support the survey. Such support can involve things like explaining the importance of the survey within the organization including to senior management, providing time during the work day for staff to complete the survey, and providing incentives to complete the survey. While SAFE Work Manitoba will help support the workplace in all aspects of the survey, the organization will have to devote time and resources to ensure it is successful.

In addition to the time that employees will take to complete the survey, an individual within the organization will need to be identified who can liaise with SAFE Work Manitoba and organize the distribution of the survey internally (as needed). As well, the results of the survey will be shared with the workplace and how this information is received and used, will be important to making changes to improve the safety climate within the organization.

6.2.3 Explaining the process and responsibilities

The most successful sites are likely to be those where the organization has to do as little as possible. This is less of a challenge if all employees have access to email and can be invited to complete the survey online. It is more of a challenge if paper surveys need to be distributed to employees.

Regardless, it is important that the workplace knows exactly what it is committing to, its obligations for the success of the survey, and the benefits that will result. Thus a guide has been developed to ensure that the workplace understand what it needs to do.

The workplace needs to do the following:

- Identify a representative onsite who will be responsible for liaising with SAFE Work Manitoba, provide key information, organize as necessary the distribution of the survey, encourage participation, and provide ongoing support to the process.
- In consultation with SAFE Work Manitoba decide on the method(s) of distribution.
- Complete the check list provided by SAFE Work Manitoba.
- Support the distribution of the survey as needed.

Once the survey is complete, SAFE Work Manitoba will analyze the results and provide a summary of the findings to the organization. SAFE Work Manitoba may provide recommendations about what action might be taken as a result of the survey and other findings.

6.3 Guide for workplaces

A guide for workplaces can be found in Appendix E.

6.3.1 Methods of distribution

There are two ways the survey can be distributed to employees. An email invitation and follow-ups can be distributed to each employee who has regular access to a personal email through the organization; or paper copies of the questionnaire will be made available for distribution. A combination of these methods could also be used.

6.3.2 Engaging staff

Workplaces must emphasize that the survey is being conducted independently by SAFE Work Manitoba, that their responses will not be linked to them in any way, and that the results will help improve safety in the workplace. Having a member of senior management endorse the survey can help lend legitimacy and importance to the survey. Consideration can be given to include incentives, such as a draw for a gift card. This can encourage participation and acts to thank individuals for participating.

Staff need to be given time during the workday to complete the survey. Staff should be told the following about the survey:

- It is being conducted for SAFE Work Manitoba and asks a series of questions about workplace safety. It should take less than five minutes to complete.
- The organization and SAFE Work Manitoba are very interested in their perceptions of safety in the workplace. While their participation is voluntary, it is hoped that they will agree to take part in the survey and contribute their insight.
- Once they have completed the survey, all the information you provide will remain anonymous. No responses will be linked to any individual.
- The results will be compiled and reported by SAFE Work Manitoba in such a way that no individual's answers can be identified.

6.3.3 Minimum number of responses

Each workplace should consider allowing all employees to participant. This is the simplest approach to ensure a representative sample. Regardless of the size of the workplace if the survey is conducted online, the resources required are minimal. The table below provide some guidelines for the sample methodology (census or random sample) depending on the methodology.

For small populations, it is generally wise to ask everyone to participate, knowing that generally 50% will end up participating. If all are asked and given equal opportunity, the assumption is that those who respond are a random and representative sample.

For larger populations of employees, all can still be asked to participate if the method of response is online. For larger employee populations where a paper survey is employed, consideration should be given to sampling the population. The assumption behind this is that paper distribution involves a captured audience, almost all of whom will complete the survey (e.g., at a break or at a shift change). The idea is that they are distributed and collected at the same event.

Creating a sampling strategy would involve working with the workplace representative to randomly select groups of employees to participate (for example, randomly selecting shifts through a period to complete the survey).

A rough guideline of the percent of employees who should participate to ensure the validity of the results are shown in the table below. For example, if a workplace has 3,001 employees who have to complete the survey on paper, randomly selecting about 300 (who actually complete the survey) would provide a good sample size. These represent minimums, and of course, a larger sample is always better, especially if one wishes to examine the results by various subgroups, like type of role at the workplace.

Table 22: Sample size estimates

Number of employees	Survey method	Attempt (employees asked to complete the survey)	Minimum % of population completing surveys (number of completes)
50 or less	Email, paper, tablet	Census (all)	60%
51 to 100	Email, paper, tablet	Census (all)	60% (35 to 60)
101 to 250	Email, paper, tablet	Census (all)	50% (60 to 125)
251 to 500	Email, paper, tablet	Census (all)	50% (125 to 200)
501 to 1000	Paper, tablet	Random sample	40% (200 to300)
501 to 1000	Email	Census (all)	40% (200 to 300)
More than 1000	Email	Census (all)	30% or more (300)
1001 to 3,000	Paper/tablet	Random sample	30% or more (300)
3,001 plus	Paper/tablet	Random sample	10% or more (300)

6.4 Analysis and reporting

6.4.1 Creating index / key indicators

Given that there are a small number of questions, each can act as an indicator of areas of improvement. Charting responses to all statements can be displayed ranked highest (in terms of agreement) to lowest. This alone may provide workplaces with some guidance on areas that could use improvements.

Given the small number of questions, it is likely that ratings for all questions can be combined to create a single indicator for the organization.

6.4.2 Establish benchmark

There are several benchmarks that can be established:

- **Workplace benchmarks.** The first time a workplace does a survey it becomes a benchmark against which future results can be measured.

- **Industry benchmarks.** Once several workplaces in the same sector participate in the survey an industry benchmark can be created. Such a benchmark would assume every workplace is equal and therefore, the results of each workplace could be added together and then divided by the number of workplaces.

- **Provincial benchmark.** Until a large number of organizations participate a provincial benchmark could be used to show each how one organization compares to all those that participated to date. While this is less valuable than comparison within the same industry, it at least, will give each workplace an indication of how well they are doing compared to the norm.

6.4.3 Presentation of finding

The presentations of the findings for a workplace should include ratings for each of the statements, plus an overall rating for the combined question set. The response to each of the statements should be examined to see if it provides guidance as to the strengths and weaknesses of an organization's safety climate. For example, the following should be considered:

- What statement receives the lowest score in terms of agreement? How might an organization improve this item's score? For example, if the statement, "There are frequent communications about safety in my workplace," receives the lowest score, this would suggest more or different communications about safety are required.

- How are responses distributed for each statement? While many may not disagree, areas of improvement may be identified with statements that receive a large percent of "somewhat agree." For example, if a large number of employees from an organization only somewhat agree that, "In my workplace, everyone has the tools and equipment they need to do their job safely," it might suggest that such tools and equipment are not available to

everyone, that such equipment is not available consistently, or that additional tools or equipment are needed.

- Once survey benchmarks are available (by sector or for the province as a whole), SAFE Work Manitoba can begin to contextualize findings showing a workplace's position vis-a-vie these comparators. Of particular value would be to demonstrate to workplaces that those with lower claims also have higher scores from the safety climate survey. This not only demonstrates predictive value of the survey, but it also should encourage participating organizations to implement changes.

6.5 Statistical checks

The survey instrument will involve a small number of questions. Unlike longer surveys, where a pattern of responses might be an indicator of inaccuracy, it is more difficult with very short surveys to identify responses that were deliberately "spoiled." With 10 or 11 statements, it is not unreasonable that a respondent could feel the same way about all statements, and answer "strongly agree" or "strongly disagree" to all statements. Thus, "straight lining" as a method to "spoil" a survey is not detectable.

For online surveys (email or tablet), it is possible to look for "speeders," individuals who complete the survey in such a short period of time that it is not possible for them to have read the questions. The completion time is recorded with each response and these can be reviewed to see if times appear unreasonable. These responses would then be removed from the analysis.

6.6 Demographic information

At a minimum the survey instrument should include a question about the type of role within the organization (worker, middle management/supervisor, upper management). This is necessary as we know these types of employees respond differently. Further, if workplaces are able to provide estimates, by type, based on these categories, this information can be compared to the responses on the survey to see how representative the sample is to the population of employees at that workplace.

The terms "worker," "middle management/supervisor," and "upper management" may not be reflective of the roles in all workplaces. In the pilot study, we attempted to provide definitions of each that would help a respondent categorize themselves. SAFE Work may wish to take this a step further, customizing the language and definition to fit a particular workplace. This can be helpful for respondents, by making the categories more relevant to their work situation. However, it is important that — regardless of the descriptors — only three response categories be used and that they correspond to the roles of workers, middle management/supervisor, and upper management.

In some cases the number of respondents in each of these categories will be too small to conduct sub-analysis. Depending on the number of respondents, the category of 'upper management' might be combined with 'middle management/supervisors' to create a management/supervisor category. If numbers are small for all types, then no sub-analysis should be reported back to the organization. What constitutes as small sample will depend on the nature of the organization, but to ensure confidentiality of respondents, categories with less than five respondents should not be

reported separately. As well, there may be statistical reasons for not reporting on small samples, including that the results from these samples might be misleading.

In addition to type of role, including additional demographics might help understand the workplace dynamics and areas for improvement. For example, years with the organization may help understand if negative attitudes to the climate safety are more prevalent among long-time employees than new. Knowing this, strategies to address the perception of climate safety and behaviour might be very different (e.g., additional safety training for long-term employees).

Adding demographic questions, such as age, gender, first language, and years of service, can be very helpful. However, we know from the pilot that any question that might be seen as identifying the respondent is often not answered. For example, 8% did not select any of the three categories describing their role (e.g., worker, supervisor, senior management). It is possible that, for some, none of these accurately described their role, and so they left it blank. However, it is more likely that respondents felt that by providing this information they might be more easily identified. These are the risks of adding more demographic questions:

- Respondents may not do the survey.
- Respondents may not complete these particular questions.
- Because respondents are suspicious of these questions, they may spread their concerns to others, making it difficult to get other employees to complete the survey.

The first is not a problem if the survey is conducted online (through email or tablet), since the demographics can be placed on a separate page and therefore, not seen until after the safety climate statements have been asked (and assuming respondents cannot go back).

The second is a risk for any demographic question, regardless of the method. Forced response is sometimes used (for online surveys), meaning the respondent cannot finish without providing a response. However, this generally leads to frustration and providing misleading responses. Typically, at most 20% will not answer particular demographic questions, and normally it is much less.

This second risk can be mitigated somewhat by the on-site survey representative, explaining why these questions are included, how they will be used, and reassuring respondents that none of their answers will be linked back to them in any way. Such concerns can also be dealt with by explaining that if they feel uncomfortable with any question, they should simply leave the question blank.

The type of demographic questions chosen for inclusion depends of the needs of SAFE Work Manitoba. However, one of the goals of this research is to roll-up the results from all workplaces to create benchmarks, by sector and province-wide. To do this, the questionnaire used must include a core set of questions that are consistent, both in terms of number and order. We recommend that there be a core set of demographics questions included on all surveys. The 11 safety climate statements would automatically be part of this core set, as would some demographic questions, including workplace role. If additional demographics are required at

specific workplaces, these could be added to the end of the questionnaire. These optional questions would not be included in any roll-up (in other words, they would be site-specific only).

On the next page are examples of the types of demographics that might be included at the end of the safety climate survey. For example, SAFE Work may decide that three of these should be core (age, years working for the organization, and language), meaning that 15 questions would always be included on the safety climate survey. As long as questions follow the core set, SAFE Work Manitoba can include additional demographic questions to meet the special needs of a particular workplace.

To which one of the following age groups do you belong?

18 to 24
25 to 39
40 to 54
55 or older

For about how many years have you worked for this organization?

5 years or less
6 to 10 years
11 to 20 years
Over 20 years.

What language do you speak most often at home?

English
Other (please specify) _____

Are you…

Male
Female

How many years have you lived in Canada?

2 years or less
3 to 5 years
6 to 10 years
10 to 19 years
20 or more years
I was born in Canada

Which shift do you normally work?

Day shift
Evening shift
Night shift
A mix of shifts

6.7 Challenges

The success of a safety climate survey depends not only the cooperation of various workplaces, but also on the resources of SAFE Work Manitoba to manage and support the process from initiation to reporting.

6.7.1 Managing survey process

Managing the survey process will require both internal and external resources. There are several tasks that will need to be assigned to resources within SAFE Work Manitoba. These are noted in the Guide for SAFE Work Manitoba Safety Client Survey, but include liaising with various workplaces, working to establish the best method to conduct the survey, providing support as needed in the preparation to conduct of the survey, and helping to conduct the survey.

6.7.2 Support for online survey

The management of the online survey is not difficult but it does require time. The amount of time will depend on the workplace and whether they distribution is the responsibility of SAFE Work Manitoba or the workplace itself.

6.7.3 Support for paper survey

While the distribution of the paper survey should be the responsibility of the workplace, SAFE Work Manitoba will need to provide support in the form of preparing survey packages for distribution (i.e., the questionnaire and envelope), couriering them to the workplace, supporting the process, arranging for the pick-up, and entering the paper version into a database.

6.7.4 Preparing report

The report needs to be straight forward and easy to use. Ideally, like those developed during the pilot, the report would provide some background information, including the dates of the survey, response rate, number of completes overall and by type, and provide the results of each question asked, as well as summary indicator(s) in a graphical format. Consideration should also be given to examining the results by type of respondent (i.e., worker, supervisor/middle management, senior management). Typically, management has a more positive view of the workplace safety climate than workers, and it is important for management to know this difference exists and explore why that is the case. This template would be used for all workplaces.

Consideration should be given to using online survey reporting features to generate graphic frequencies. In some cases, such approach would allow workplaces to see their results in real time. This becomes more complicated when paper surveys are used, and if summative indicators are to be produced. Still, this may be an easier way to convey at least initial results to workplaces.

In addition to summative indicators, industry and provincial benchmarks will need to be developed and provided as a point of comparison when reporting to a workplace.

If the survey is to be used as a monitoring tool, the survey would not only have to be conducted regularly (annually or bi-annually) but the report would need to be updated at each point to provide the workplace with an indication of change overtime.

It is important that the report be delivered to the workplace shortly after the completion of the survey, so that it remains relevant and actionable.

7.0 Recommendation

7.1 Online survey

Rather than investing in an in-house platform, we would recommend using an online survey supplier to host the survey. Such a supplier would allow SAFE Work Manitoba to have complete control over the surveys and resulting data. Although the survey and data it collects will be housed off site, the programming and management of the survey can be done from the offices of SAFE Work Manitoba.

While an online approach reduces considerable the time and resources needed both at SAFE Work Manitoba and the workplace being surveyed, it still requires participation from both.

The survey has to be built and tested online. Given the nature of the survey, this is a simple and straightforward process. Before the survey is used by any workplaces, it should be tested in-house to ensure the text is accurate and the survey performs as expected. Once the survey is built and tested, it should not need to be programmed again. While the survey can be assigned to a particular workplace, the data collection will occur through the same survey.

For each workplace to utilize the online survey, SAFE Work Manitoba will need to do the following:

- Set up a "collector" for each workplace (essentially a storage space for that particular workplace).
- Modify as necessary the initial invitation and follow-up (if responsible for their distribution) to personalize it for a particular workplace and include a link unique to that workplace.
- Distribute the invitation and follow-up from a list of email addresses provided by the workplace (again, if responsible for the distribution).
- Monitor the number of surveys completed following each mailing.
- Close off the survey at any agreed to time.
- Download the survey results for analysis.

Depending on the number of surveys being conducted this can be a time-consuming activity for SAFE Work Manitoba. However, if surveys are not run regularly then each time a survey is conducted it will require a short period of re-learning the steps involved.

We would recommend Fluid Surveys as the platform to conduct the Climate Safety Survey. Fluid allows the user to build and manage online surveys and has the advantage that all data collected is stored on servers located in Canada.

7.2 Paper survey

A paper survey is much more labour intensive both for SAFE Work Manitoba and the workplace in which the survey is going to be conducted.

For each workplace, SAFE Work Manitoba will need to do the following:

- prepare survey packages (questionnaire and envelope) for in numbers for distribution
- arrange for a courier to deliver the packages to the workplace
- follow-up with the workplace to ensure the distribution is going as planned
- arrange for a courier to collect completed questionnaire
- open all envelopes, stamp with a ID number, and count number of completes
- data enter the results (this likely can be done through the online survey product)

The data enter could be eliminated if the questionnaire forms are scannable. Scannable forms require special software and a high speed scanner.

7.3 Tablet survey

If an online version of a survey is available, it can often be accessed on a tablet or other mobile device, in addition to an Internet browser. There are advantages to using a tablet to administer the survey. The main advantage is at the back end; since the responses are recorded electronically, they can be easily uploaded to a database for analysis. This eliminates the data entry step that is required for a paper survey.

The downside of a tablet is that, depending on the number of tablets available, respondents may need to wait to complete the survey. Some respondents will not feel comfortable or know how to use a tablet. In these cases, support will be needed to help them use the tablet, or paper copies of the questionnaire will need to be made available. Indeed, spare paper copies of the questionnaire should always be available.

7.4 Analysis and reporting results

While some analysis can be done directly using the online survey software, it may be necessary to export the data to do some of the analysis. As well, it may be necessary to build a database in a more sophisticated statistical package (such as SPSS) if more complex analysis is desired or if analysis but subgroups (e.g. by industry) is desired.

Although the recommended report is very simple, it does require the data to be cleaned (removing missing, out of range, or other problem values), at least one variable to be created, and frequencies and cross-tabulations to be run. The programming for the latter, once done, would likely not need to be repeated again, but still we require time for each workplace. Further, those reports need to be stored so they can be easily updated once a workplace does a second and third survey so that the workplace can monitor change over time.

7.5 Third party support

PRA would recommend the following:

- SAFE Work should consider contracting the conduct of the Safety Climate survey to a third party. This third party, acting on behalf of SAFE Work Manitoba, would manage all aspects of survey process from liaising with the workplace to producing the reports.

- A Fluid licence can be opened by SAFE Work Manitoba, and administrative (to build the survey) and collector (to administer the survey) rights can be assigned to any third party. Similarly, they can be revoked from a third party at any time, giving SAFE Work Manitoba control over the survey process and data that has been collected.

Third party support is more likely to ensure timely analysis of the data from individual workplaces, an ongoing resource to build benchmarks by industry and province-wide. It would also provide resources to investigate “red flags” that can be used to identify the most at-risk workplaces and more general benchmarks that indicate when the safety culture within a workplace is good, fair, or poor.

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Appendix A – Pilot questionnaires

Safety Climate Questionnaire – V1

Please read through this list of statements and for each one please indicate your level of agreement on a scale of 1 to 5, where 1 means you strongly disagree and 5 means you strongly agree. In each case please think about how each statement applies to your workplace.

Statement	Strongly Disagree 1	2	3	4	Strongly Agree 5
1. In my organization safety is as important as quality of the work and getting the work done on time	O_1	O_2	O_3	O_4	O_5
2. Those in charge of safety have the authority to make the changes they think are necessary	O_1	O_2	O_3	O_4	O_5
3. Workers and management work together to ensure the safest possible conditions	O_1	O_2	O_3	O_4	O_5
4. No major shortcuts are taken when worker safety is involved	O_1	O_2	O_3	O_4	O_5
5. The safety of workers is a high priority for my organization	O_1	O_2	O_3	O_4	O_5
6. My organization acts quickly when a safety concern or problem is raised	O_1	O_2	O_3	O_4	O_5
7. My organization listens carefully to workers' ideas about improving safety	O_1	O_2	O_3	O_4	O_5

Please read through this list of statements and for each one please indicate your level of agreement on a scale of 1 to 5, where 1 means you strongly disagree and 5 means you strongly agree. In each case please think about how each statement applies to your workplace.

Statement	Strongly Disagree 1	2	3	4	Strongly Agree 5
8. Formal safety inspections are regularly conducted in my workplace.	O_1	O_2	O_3	O_4	O_5
9. Workers who act safely receive positive feedback	O_1	O_2	O_3	O_4	O_5
10. Employees are told when they do not follow good safety practices	O_1	O_2	O_3	O_4	O_5
11. There are frequent communications about safety in my workplace	O_1	O_2	O_3	O_4	O_5
12. Formal inspections are regularly done to see if workers are following safety rules	O_1	O_2	O_3	O_4	O_5
13. Workers are regularly asked about their safety concerns	O_1	O_2	O_3	O_4	O_5
14. Where I work, I feel free to report safety concerns	O_1	O_2	O_3	O_4	O_5
15. I understand what my rights and responsibilities are for safety	O_1	O_2	O_3	O_4	O_5

Please read through this list of statements and for each one please indicate your level of agreement on a scale of 1 to 5, where 1 means you strongly disagree and 5 means you strongly agree. In each case please think about how each statement applies to your workplace.

Statement	Strongly Disagree 1	2	3	4	Strongly Agree 5
16. At my workplace, everyone has the information they need to work safely	O1	O2	O3	O4	O5
17. Workers are involved in decisions affecting their safety	O1	O2	O3	O4	O5
18. New employees at my organization learn quickly that they are expected to follow safety practices	O1	O2	O3	O4	O5
19. Co-workers often help and remind each other to work safely	O1	O2	O3	O4	O5
20. My workplace values safety	O1	O2	O3	O4	O5
21. My workplace regularly has safety awareness events	O1	O2	O3	O4	O5
22. My workplace has a safety committee that is effective at improving safety	O1	O2	O3	O4	O5

Please read through this list of statements and for each one please indicate your level of agreement on a scale of 1 to 5, where 1 means you strongly disagree and 5 means you strongly agree. In each case please think about how each statement applies to your workplace.

Statement	Strongly Disagree 1	2	3	4	Strongly Agree 5
23. Safety is given a high priority in training programs	O1	O2	O3	O4	O5
24. My organization invests a lot of time in safety training for workers	O1	O2	O3	O4	O5
25. My workplace ensures I understand what my responsibilities are for safety	O1	O2	O3	O4	O5
26. At my workplace, there are rules and procedures about how to work safely	O1	O2	O3	O4	O5
27. I'm clear on how the safety rules affect me	O1	O2	O3	O4	O5
28. In my workplace everyone has the tools and equipment they need to do their job safely	O1	O2	O3	O4	O5

29. **Without any safety procedures in place, what would be the risk of injury to employees at your workplace?**

Low Risk				High Risk
1	**2**	**3**	**4**	**5**
O_1	O_2	O_3	O_4	O_5

30. **Please rate your level of agreement with this statement: "Workplace injuries and accidents are an inevitable part of life."**

Strongly Disagree				Strongly Agree
1	**2**	**3**	**4**	**5**
O_1	O_2	O_3	O_4	O_5

31. **Which of the following best describes your role within your organization?**

Worker..... O_1
That is, those who do <u>not</u> oversee others, this may include skilled trades, labourers, administrative staff, clerks, etc. without supervisory responsibility

Supervisors/team leaders/middle management..... O_2
That is, those who oversee other staff or have responsibilities for assigning duties

Senior management ..... O_3
That is, organization decision makers, including the president, CEO, VP, and Owners

Thank you for your time.

Please place your completed survey in the envelope provided before returning it.

Safety Climate Questionnaire – V2

Please read through this list of statements and for each one please indicate your level of agreement on a scale of 1 to 5, where 1 means you strongly disagree and 5 means you strongly agree. In each case please think about how each statement applies to your workplace.

Statement	Strongly Disagree 1	2	3	4	Strongly Agree 5
1. In my organization safety is at least as important as quality of the work and getting the work done on time	O_1	O_2	O_3	O_4	O_5
2. Those in charge of safety have the authority to make the changes they think are necessary	O_1	O_2	O_3	O_4	O_5
3. Workers and management work together to ensure the safest possible conditions	O_1	O_2	O_3	O_4	O_5
4. No major shortcuts are taken when worker safety is involved	O_1	O_2	O_3	O_4	O_5
5. The safety of workers is a high priority for my organization	O_1	O_2	O_3	O_4	O_5
6. My organization acts quickly when a safety concern or problem is raised	O_1	O_2	O_3	O_4	O_5
7. My organization listens carefully to workers' ideas about improving safety	O_1	O_2	O_3	O_4	O_5

Please read through this list of statements and for each one please indicate your level of agreement on a scale of 1 to 5, where 1 means you strongly disagree and 5 means you strongly agree. In each case please think about how each statement applies to your workplace.

Statement	Strongly Disagree 1	2	3	4	Strongly Agree 5
8. Formal safety inspections are regularly conducted in my workplace	O_1	O_2	O_3	O_4	O_5
9. Workers who act safely receive positive feedback	O_1	O_2	O_3	O_4	O_5
10. Employees are told when they do not follow good safety practices	O_1	O_2	O_3	O_4	O_5
11. There are frequent communications about safety in my workplace	O_1	O_2	O_3	O_4	O_5
12. Formal inspections are regularly done to see if workers are following safety rules	O_1	O_2	O_3	O_4	O_5
13. Workers are regularly asked about their safety concerns	O_1	O_2	O_3	O_4	O_5
14. Where I work, I feel free to report safety concerns	O_1	O_2	O_3	O_4	O_5
15. I understand what my rights and responsibilities are for safety	O_1	O_2	O_3	O_4	O_5

Please read through this list of statements and for each one please indicate your level of agreement on a scale of 1 to 5, where 1 means you strongly disagree and 5 means you strongly agree. In each case please think about how each statement applies to your workplace.

Statement	Strongly Disagree 1	2	3	4	Strongly Agree 5
16. At my workplace, everyone has the information they need to work safely	O_1	O_2	O_3	O_4	O_5
17. Workers are always involved in decisions affecting their safety	O_1	O_2	O_3	O_4	O_5
18. New employees at my organization learn quickly that they are expected to follow safety rules	O_1	O_2	O_3	O_4	O_5
19. Co-workers often help and remind each other to work safely	O_1	O_2	O_3	O_4	O_5
20. My workplace values improvements to safety	O_1	O_2	O_3	O_4	O_5
21. My workplace regularly has safety awareness events	O_1	O_2	O_3	O_4	O_5
22. My workplace has a safety committee that is effective at improving safety	O_1	O_2	O_3	O_4	O_5

Please read through this list of statements and for each one please indicate your level of agreement on a scale of 1 to 5, where 1 means you strongly disagree and 5 means you strongly agree. In each case please think about how each statement applies to your workplace.

Statement	Strongly Disagree 1	2	3	4	Strongly Agree 5
23. Safety is given a high priority in training programs	O_1	O_2	O_3	O_4	O_5
24. My organization invests a lot of time in safety training for workers	O_1	O_2	O_3	O_4	O_5
25. My workplace ensures I understand what my responsibilities are for safety	O_1	O_2	O_3	O_4	O_5
26. At my workplace, there are rules and procedures about how to work safely	O_1	O_2	O_3	O_4	O_5
27. I'm clear on how the safety rules affect me	O_1	O_2	O_3	O_4	O_5
28. In my workplace everyone has the tools and equipment they need to do their job safely	O_1	O_2	O_3	O_4	O_5

29. **Without any safety procedures in place, what would be the risk of injury to employees at your workplace?**

Low Risk				High Risk
1	**2**	**3**	**4**	**5**
O_1	O_2	O_3	O_4	O_5

30. **Please rate your level of agreement with this statement: "Workplace injuries and accidents are an inevitable part of life."**

Strongly Disagree				Strongly Agree
1	**2**	**3**	**4**	**5**
O_1	O_2	O_3	O_4	O_5

31. **Which of the following best describes your role within your organization?**

Worker..... O_1
That is, those who do <u>not</u> oversee others, this may include skilled trades, labourers, administrative staff, clerks, etc. without supervisory responsibility

Supervisors/middle management ..... O_2
That is, those who oversee other staff or have responsibilities for assigning duties including team leaders, supervisors

Senior management ..... O_3
That is, organization decision makers including the president, CEO, VP, and Owners

Thank you for your time.

Please place your completed survey in the envelope provided before returning it.

Appendix B – Recommended questionnaire

Recommended SAFE Work Manitoba
Safety Climate Questionnaire

Please read through this list of statements and for each one please indicate your level of agreement on a scale of 1 to 5, where 1 means you strongly disagree and 5 means you strongly agree. In each case please think about how each statement applies to your workplace.

Statement	Strongly Disagree 1	2	3	4	Strongly Agree 5
1. In my organization safety is as important as quality of the work and getting the work done on time	O_1	O_2	O_3	O_4	O_5
2. The safety of workers is a high priority for my organization	O_1	O_2	O_3	O_4	O_5
3. Formal safety inspections are regularly conducted in my workplace	O_1	O_2	O_3	O_4	O_5
4. There are frequent communications about safety in my workplace	O_1	O_2	O_3	O_4	O_5
5. Workers are regularly asked about their safety concerns	O_1	O_2	O_3	O_4	O_5
6. Workers are involved in decisions affecting their safety	O_1	O_2	O_3	O_4	O_5
7. New employees at my organization learn quickly that they are expected to follow safety rules	O_1	O_2	O_3	O_4	O_5
8. My workplace has a safety committee that is effective at improving safety	O_1	O_2	O_3	O_4	O_5
9. Safety is given a high priority in training programs	O_1	O_2	O_3	O_4	O_5
10. At my workplace, there are rules and procedures about how to work safely	O_1	O_2	O_3	O_4	O_5
11. In my workplace everyone has the tools and equipment they need to do their job safely	O_1	O_2	O_3	O_4	O_5

12. **Which of the following best describes your role within your organization?**

Worker..... O_1
That is, those who do not oversee others, this may include skilled trades, labourers, administrative staff, clerks, etc. without supervisory responsibility

Supervisors/middle management ..... O_2
That is, those who oversee other staff or have responsibilities for assigning duties including team leaders, supervisors

Senior management ..... O_3
That is, organization decision makers including the president, CEO, VP, and Owners

13. **To which one of the following age groups do you belong?**

18 to 24	O_1
25 to 39	O_2
40 to 54	O_3
55 or older	O_4

14. **For about how many years have you worked for this organization?**

1 or 2 years	O_1
3 to 5 years	O_2
6 to 10 years	O_3
11 to 20 years	O_4
Over 20 years	O_5

15. **What language do you speak most often at home?**

English	O_1
Other (Please specific) _____	O_2

Thank you for your time.

Appendix C – Guide for SAFE Work Manitoba

SAFE Work Survey Guide

Buy-in. It is important to involve the senior most person within an organization. This ensures that the organization is onside and will support the survey. Such support can involve explaining the importance of the survey within the organization including to senior management, providing time during the work day for staff to complete the survey, and providing incentives to complete the survey.

Resources: The buy-in is important because the safety climate survey will consume time and internal resources. In addition to the time that staff will take to complete the survey, an individual within the organization will need to be identified to liaise with SAFE Work Manitoba and organize the distribution of the survey internally.

Information: To ensure the survey is conducted efficiently and effectively, SAFE Work Manitoba should gather the information below prior to the launch of the survey.

Participant selection: All employees of an organization should be asked to participate. An attempted census is the simplest and easiest means, regardless of the size of the organization. While a random sample could be less time consuming for the organization and for SAFE Work Manitoba, especially if the survey is being done on paper, there are challenges in getting a random sample.

Promotion: SAFE Work should encourage workplaces to promote the survey. This might involve an email or memo announcement from a senior person within the organization explaining the purpose of the survey and the importance of participation. An example is provided.

Information needed: SAFE Work Manitoba will require the following information before conducting the survey: total number of employees at all levels; approximate number of employees by type (workers, supervisors/middle management, senior management); total number of employees that will be asked to take part in the survey; number of employees who will be asked to participate in the online and paper versions (if both are being used); who will be responsible for distributing email invitations and follow-ups (SAFE Work or organization), if SAFE Work is responsible when the database will be delivered and if the organization is responsible when the examples will be provided; the timing of distribution, including reminders and closing date; and for paper surveys when and where the questionnaires will be delivered and picked up.

A check list is provided to make the gathering of the required information easy and consistent.

SURVEY METHOD

Email: Assuming that a survey has been built on an online platform, this would involve sending employees an email invitation with a link to the site that houses the questionnaire. An example of an introductory email is provided. Following the initial invitation, two or three follow-up reminder emails are usually sent. Each of these would include a link to the online survey.

Ideally, the distribution to employees would be handled by SAFE Work Manitoba. Taking charge of the distribution means that SAFE Work Manitoba would be fully in control of the timing and follow-ups, and would know exactly how each set was handled. It also means that each employee could receive a link with a unique PIN. This would allow SAFE Work to target follow-up emails to those who have not responded.

However, depending on the organization, an email address may be considered private information and not something the company would be willing to share with an outside organization.

If email information cannot be provided, it would be the responsibility of the organization to distribute the email invitations and follow-up. In this case, the link to the online survey would be open, meaning that the completion of the survey by individual employees cannot be monitored. Follow-up emails would need to be distributed to all employees, since those who have completed cannot be identified.
Regardless of whether SAFE Work or the participating organization is responsible for the distribution, a schedule for the distribution should be established. SAFE Work should have a discussion with the organization representative about the timing of the invitation and follow-up, focussing on avoiding conflicts with internal activities (e.g., off-site training) or external events (e.g., year-end holidays). The timing of the invitation and the follow-up can be important for achieving a high response. The day of the week and the time of day should be staggered for each of the initial invitation and follow-up emails.

During the survey period, SAFE Work Manitoba should monitor the number of completed surveys online. Typically, within 24 hours of the invitation being distributed, 10–20% of employees should respond. A similar response would be expected after each follow-up email. If the number of completed surveys is lower, SAFE Work should follow up with the organization's representative. If they are responsible for distributing the email, they should confirm the emails were distributed and to the number of employees planned. SAFE Work should investigate whether internal activities or other issues might be delaying the completion of the survey.

An online survey may also make it more convenient to offer the survey questions in other languages. Versions could be created in the most common languages spoken by employees in an organization (other than English) and a question could be added to the survey instrument, allowing respondents to choose among these languages.

Paper: To conduct a paper survey, SAFE Work Manitoba would provide the organization with paper questionnaires for each of the employees that will be asked to participate (plus 10% to account for damaged, misplaced, or underestimation). For example, if the organization requests 200 paper questionnaires, 220 should be sent. The survey package will include the questionnaire, plus an envelope in which to place the completed questionnaire. Ideally, the questionnaire should be stuck in the lip of the envelope; this interweaving will make it easier for on-site distribution. SAFE Work Manitoba will courier the number of paper questionnaires required to the address provided by the organization.

In consultation with the organization to be surveyed, SAFE Work Manitoba should establish a date for distributing the survey and a date that the survey will close on. As well, SAFE Work should have a discussion with the organization representative about how the distribution will take place. Ideally, the organization representative should organize the distribution, allowing employees the time during their work hours to complete the survey.

If the organization has taken responsibility for the distribution, then a few days after the scheduled distribution date, SAFE Work Manitoba should confirm with the organization representative that the paper distribution is proceeding as planned and ask for an estimated number of completed surveys. On the agreed closing date, SAFE Work Manitoba should contact the organization to confirm that they have completed the distribution and collection of the survey; and a date should be planned to arrange a courier to pick up the completed surveys.

If SAFE Work Manitoba is responsible for the distribution on-site, it should work with the organization to establish access points that allow SAFE Work to interact directly with employees. This may involve attending shift changes, visiting employees at the workstations, or stopping in at their office. As mentioned, to be successful, the survey needs to be sanctioned and supported by the organization. The organization should give employees time during the work day and explain that they will be approached to complete an important survey about workplace safety. SAFE Work needs to be able to take the survey into the workplace and engage employees. On-site distribution that is not proactive and depends on employees finding the time and interest to go to a central location to complete the survey is likely fail.

Each returned questionnaire will be in a sealed envelope. The envelope should be opened immediately, and each paper survey stamped with an ID number that associates it with the organization, and is unique to the questionnaire. Each questionnaire should be examined to ensure it has been completed, and the number of completed surveys should be tallied. If the number is less than what was expected, SAFE Work should follow up with the organization, to understand the reason for the discrepancy.

When the previous steps have been completed, SAFE Work should arrange for the completed questionnaires to be data entered for analysis. An alternative to data entry is to preprogram the questionnaire as a scannable form. The advantage of such a form is that, rather than having to data enter the results by hand, the form is scanned with the results automatically being added to a database. Data taken from scannable forms tends to be more accurate than that which is manually entered. There are normally two investments that need to be made to ensure scanning it done accurately and efficiently: scanning software and a high-speed scanner.

Normally, the questionnaire needs to be constructed using the scanning software, which identifies those fields to be scanned and the values to be recorded for each field that is completed. One downside of any scannable form is that if the questionnaire is not completed properly it may not scan, requiring manual entry. The survey questionnaire would have to be modified to include an explanation of the appropriate way to complete the questions (normally a bubble needs to be shaded in).

Once completed, questionnaires needed to be scanned. To do this efficiently requires a high-speed scanner that allows the questionnaire to be fed through the scanner, either by hand or automatically. Some scanners are able to scan double-sided pages, while others require two-sided pages to be fed through twice.

Both the high-speed scanner and the scanning software can be expensive. An alternative is to engage a third party to create the form and/or scan the completed questionnaires.

Tablet: If an online version of a survey is available, it can often be accessed on a tablet or other mobile device, in addition to an Internet browser. There are advantages to using a tablet to administer the survey. The main advantage is at the back end; since the responses are recorded electronically, they can be easily uploaded to a database for analysis. This eliminates the data entry step that is required for a paper survey. A tablet may also be seen by the respondent as more secure and private than a paper questionnaire. Some also feel that the use of technology to gather information is more engaging for the respondent and thus potential respondents are more likely to complete the survey.

The downside of a tablet is that, depending on the number of tablets available, respondents may need to wait to complete the survey. Some respondents will not feel comfortable or know how to use a tablet. In these cases, support will be needed to help them use the tablet, or paper copies of the questionnaire will need to be made available. Indeed, spare paper copies of the questionnaire should always be available.

Since a tablet will be handed to a respondent to complete, the tablet should have restrictions so that the only thing accessible by respondents is the survey itself. This will prevent respondents from inadvertently going to a different program on the tablet or using it for other purposes.

The back-key should be disabled so that the next respondent cannot review a previous respondent’s responses. While at the end of the survey, a button should confirm the completion with a thank you; this last button is something that would not clicked.

The use of a tablet suggests that a representative from SAFE Work Manitoba is on site to administer the survey. As with the paper survey, the goal should be for SAFE Work to have access to the organization’s employees.

The nature of the access will depend on the type of the work being done, but a SAFE Work representative could attend at times when large numbers of employees are together (e.g., shift change), to visit individual's offices, or at some other times that all employees (or a random sample of employees for larger workplaces) have an opportunity to complete the survey.

SAFETY CLIMATE SURVEY
SAFE WORK MANITOBA CHECK LIST

a. Name of organization: _____

b. Name of primary contact at the organization: _____

c. Contact information:

Telephone number: _____ -_____- _____

Email address: _____

d. Total number of employees at all levels: _____ employees

e. Approximate number of employees by type:

(Definition of each type is below)

_____ workers

_____ supervisors/middle management

_____ senior management

f. (IF DIFFERENT FROM 'D' ABOVE) Total number of employees that will be asked to take part in the survey: _____ employees

g. What method(s) will be used to survey employees?

☐ **Online**

☐ **Paper**

☐ **Both**

h. (IF BOTH) How many employees will be asked to participant using:

_____ **Online**

_____ **Paper**

ONLINE

i. Responsible for distributing the email invitation:

☐ **SAFE Work Manitoba**

☐ **Organization**

(IF SAFE WORK)

j. Date that database will be delivered to SAFE Work. _____/_____/_____
MM DD YY

Confirm format and information to be provided, including name and email address of employees (IF ORGANIZATION). Examples of invitation and follow-up emails provided.

☐ **YES**

k. Timing of distribution:

Date invitation to be distributed: _____/_____/_____

Date of first reminder: _____/_____/_____

Date of second reminder: _____/_____/_____

Date survey to close: _____/_____/_____

PAPER

l. Location to which paper questionnaires are to be delivered

Name of receiver: _____

Street address: _____

City: _____, MB

Postal Code: _____ _____

m. Timing of distribution

MM DD YY

Date survey is couriered to organization: _____/_____/_____

Date organization begins distribution: _____/_____/_____

Expected date for pick-up of completed surveys: _____/_____/_____

Definitions of Employee Type
Worker: those who do not oversee others, this may include skilled tradespeople, labourers, administrative staff, and clerks without supervisory responsibility
Supervisors/middle management: those who oversee other staff or have responsibilities for assigning duties, including team leaders and supervisors.
Senior management: organization decision makers, including the president, CEO, vice presidents, and owners.

SAFE Work Manitoba
Safety Climate Survey Check List

Email Invitation

Dear <CONTACT NAME>:

SAFE Work Manitoba would like to invite you to participate in a short survey on workplace safety.

Both <Organization> and SAFE Work Manitoba are very interested in your perceptions of safety in the workplace. While your participation is voluntary, we hope that you will agree to take part in the survey and contribute your valuable insight.

The survey should take no more than a few minutes, and you can complete it by clicking the link below **or** you can copy and paste the link into your browser.

LINK

The information you provide will remain anonymous. All of your responses are confidential to SAFE Work Manitoba and will not be associated with you in anyway. The results of this survey will be reported to <ORGANIZATION> by SAFE Work Manitoba in a manner that prevents the answers from individuals from being identified. The results will be used to monitor and improve workplace safety at your organization.

If you have any questions about the survey, you can contact <NAME> at SAFE Work Manitoba <email>.

If you have any questions about how the information will be used by <ORGANIZATION> please contact <NAME> <email>.

Thank you for taking the time to complete this survey.

Follow-up email (if distributed by organization)

Dear <CONTACT NAME>:

This is a reminder to complete the survey on safety in the workplace. If you have already completed the survey, thank you. If not please, take a few minutes now to do so by clicking on the link below.

LINK

If you have any trouble connecting, you can copy and paste the link into your browser.

Both <ORGANIZATION> and SAFE Work Manitoba are very interested in your perceptions of safety in the workplace. While your participation is voluntary, we hope that you will agree to take part in the survey and contribute your valuable insight.

The results of this survey will be reported to <ORGANIZATION> by SAFE Work Manitoba in such a manner that no individual's answers can be identified. The results will be used to monitor and improve workplace safety at your organization.

If you have any questions about the survey, you can contact SAFE Work Manitoba at <EMAIL>.

If you have any questions about how the information will be used by <ORGANIZATION> please contact <EMAIL>.

Thank you again for taking the time to complete this survey.

Follow-up email (if distributed by SAFE Work Manitoba)

Dear <CONTACT NAME>:

This is a reminder to complete the survey on safety in the workplace. Please take a few minutes now to do so by clicking on the link below.

LINK

If you have any trouble connecting, you can copy and paste the link into your browser.

Both <ORGANIZATION> and SAFE Work Manitoba are very interested in your perceptions of safety in the workplace. While your participation is voluntary, we hope that you will agree to take part in the survey and contribute your valuable insight.

The results of this survey will be reported to <ORGANIZATION> by SAFE Work Manitoba in such a manner that no individual's answers can be identified. The results will be used to monitor and improve workplace safety at your organization.

If you have any questions about the survey, you can contact SAFE Work Manitoba at <EMAIL>.

If you have any questions about how the information will be used by <ORGANIZATION> please contact <EMAIL>.

Thank you again for taking the time to complete this survey.

SAFE Work Manitoba Climate Safety Survey
Paper survey

Remind the representative of the organization during the distribution of the paper questionnaire the following should be explained:

- The survey is being conducted for SAFE Work Manitoba and asks a series of questions about workplace safety. It should take about five minutes to complete.

- Both <Organization> and SAFE Work Manitoba are very interested in your perceptions of safety in the workplace. While your participation is voluntary, we hope that you will agree to take part in the survey and contribute your valuable insight.

- Once you have completed the survey, please fold it in half, place it inside the envelope provided, and return it to <NAME/POSITION>.

- All the information you provide will remain anonymous. When you return the survey, all of your responses will be confidential and will not be associated with you in any way.

- The results of this survey will be reported to SAFE Work Manitoba and <Organization> in such a way that no individual's answers can be identified.

Appendix D – Guide for workplaces

SAFE Work Survey Guide
Workplace

Buy-in: Within your organization it will be important to facilitate buy-in from the most junior to the most senior individuals. Senior management can show support for the survey in many ways, including endorsing it and saying they will also be completing a questionnaire. More generally, for staff at all levels within your organization it is important to explain why the survey is taking place, the importance of taking the time to complete a questionnaire, that time during the workday will be provided to complete the survey, and what other incentives, if any, are offered. Other incentives might include a draw for a gift card or explaining how the results will be shared.

Resources: The safety climate survey will consume some internal resources. You or another individual will need to liaise with SAFE Work Manitoba and organize the distribution of the survey internally. The distribution can be done either by email (to those with regular access to an organization email account) or on paper. Below these options are explained more fully.

Participant selection: All employees in your organization should be invited to participate; this includes everyone up to the most senior person in the organization.

Promotion: Promoting the survey prior to its distribution can result in a higher response rate. Consider who within the organization is best positioned to lend importance and credibility to the survey. This might be the senior-most safety person, or a member of senior management. An email announcement, a notice on bulletin boards, or notices in employees' paycheques are some ways of making employees aware of the upcoming survey.

Information needed: You will need to provide SAFE Work Manitoba with a number of pieces of information in preparation for the survey; a check list is appended to help. A representative of SAFE Work will assist you in this process.

Online: The online survey will involve sending employees an email invitation with a link to a site that houses the questionnaire. An example of an introductory email is provided. Following the initial invitation, two or three follow-up reminder emails are usually sent. Each of which would include the link to the online survey.

SAFE Work Manitoba can handle the distribution of the email invitation and follow-up if your organization is able provide a list of names and email addresses. SAFE Work Manitoba will work with you to establish the appropriate day and time for the initial email invitation and follow-ups.

In some organizations, email addresses cannot be easily shared. In this case, you will have to establish who within your organization can distribute the initial invitation and follow-up emails.

Regardless of whether SAFE Work or your organization is responsible for the distribution, a schedule for the distribution will be established.

Paper: It is understood that not all employees in an organization will have regular access to email. In this case, SAFE Work Manitoba can provide your organization with paper copies for distribution. The survey package will include questionnaires and an envelope in which to place the completed questionnaire. SAFE Work Manitoba will courier to an address you provide the number of copies requested, plus an instruction sheet (see example) on how to proceed with the distribution.

SAFE Work Manitoba will consult with you to establish how best to distribute the questionnaire and the dates over which the distribution will take place. The questionnaire is short, but you should plan five to ten minutes

for the questionnaires to be distributed, completed by employees and then collected. Distribution could take place at any place a number of employees gather, before a shift begins, at a coffee break, or during planned safety meetings. The goal is to ensure all employees have equal opportunity to complete the survey; for example, if there are morning, evening, and overnight shifts, employees at each of these shifts should be given a questionnaire to complete. Depending on the number of employees and shifts, this process may take days or weeks.

When a questionnaire is completed, it should be placed by the respondent in the envelope provided, sealed, and returned to the appointed representative.

SAFETY CLIMATE SURVEY
CHECK LIST

Please complete this check list. Once you have completed it a presentative from SAFE Work Manitoba will go through it with you. If you have any question please contact SAFE Work Manitoba.

a. Total number of employees at all levels: _____ employees

b. Approximate number of employees by type:

(Definition of each type is below)

_____ workers

_____ supervisors/middle management

_____ senior management

c. (IF DIFFERENT FROM 'D' ABOVE) Total number of employees that will be asked to take part in the survey: _____ employees

d. (AS APPROPRIATE) Who is being excluded from the survey and why?

_____

_____

_____

e. What method(s) will be used to survey employees? (CHECK ONE)

☐ **Online only**

☐ **Paper only**

☐ **Both**

f. (IF BOTH) How many employees will be asked to participant using:

_____ **Online**

_____ **Paper**

ONLINE

g. Will your organization or SAFE Work Manitoba distribute the email invitation and follow-ups:

☐ **SAFE Work Manitoba**

☐ **Organization**

h. (IF SAFE Work) Date that database will be delivered to SAFE Work: _____/_____/_____

MM DD YY

i. Timing of distribution (DISCUSS WITH SAFE Work):

Date invitation to be distributed: _____/_____/_____

Date of first reminder: _____/_____/_____

Date of second reminder: _____/_____/_____

Date survey to close: _____/_____/_____

PAPER

j. Timing of distribution (DISCUSS WITH SAFE WORK)

MM DD YY

Date survey is couriered to organization: _____/_____/_____

Date organization begins distribution: _____/_____/_____

Expected date for pick-up of completed surveys: _____/_____/_____

Definitions of Employee Type
Worker: those who do not oversee others, this may include skilled tradespeople, labourers, administrative staff, and clerks without supervisory responsibility
Supervisors/middle management: those who oversee other staff or have responsibilities for assigning duties, including team leaders and supervisors.
Senior management: organization decision makers, including the president, CEO, vice presidents, and owners.

SAFE Work Manitoba
Safety Climate Survey Check List

Email Invitation

Dear <CONTACT NAME>:

SAFE Work Manitoba would like to invite you to participate in a short survey on workplace safety.

Both <Organization> and SAFE Work Manitoba are very interested in your perceptions of safety in the workplace. While your participation is voluntary, we hope that you will agree to take part in the survey and contribute your valuable insight.

The survey should take no more than a few minutes, and you can complete it by clicking the link below **or** you can copy and paste the link into your browser.

LINK

The information you provide will remain anonymous. All of your responses are confidential to SAFE Work Manitoba and will not be associated with you in anyway. The results of this survey will be reported to <ORGANIZATION> by SAFE Work Manitoba in a manner that prevents the answers from individuals from being identified. The results will be used to monitor and improve workplace safety at your organization.

If you have any questions about the survey, you can contact <NAME> at SAFE Work Manitoba <email>.

If you have any questions about how the information will be used by <ORGANIZATION> please contact <NAME> <email>.

Thank you for taking the time to complete this survey.

Follow-up email (if distributed by organization)

Dear <CONTACT NAME>:

This is a reminder to complete the survey on safety in the workplace. If you have already completed the survey, thank you. If not please, take a few minutes now to do so by clicking on the link below.

LINK

If you have any trouble connecting, you can copy and paste the link into your browser.

Both <ORGANIZATION> and SAFE Work Manitoba are very interested in your perceptions of safety in the workplace. While your participation is voluntary, we hope that you will agree to take part in the survey and contribute your valuable insight.

The results of this survey will be reported to <ORGANIZATION> by SAFE Work Manitoba in such a manner that no individual's answers can be identified. The results will be used to monitor and improve workplace safety at your organization.

If you have any questions about the survey, you can contact SAFE Work Manitoba at <EMAIL>.

If you have any questions about how the information will be used by <ORGANIZATION> please contact <EMAIL>.

Thank you again for taking the time to complete this survey.

Follow-up email (if distributed by SAFE Work Manitoba)

Dear <CONTACT NAME>:

This is a reminder to complete the survey on safety in the workplace. Please take a few minutes now to do so by clicking on the link below.

LINK

If you have any trouble connecting, you can copy and paste the link into your browser.

Both <ORGANIZATION> and SAFE Work Manitoba are very interested in your perceptions of safety in the workplace. While your participation is voluntary, we hope that you will agree to take part in the survey and contribute your valuable insight.

The results of this survey will be reported to <ORGANIZATION> by SAFE Work Manitoba in such a manner that no individual's answers can be identified. The results will be used to monitor and improve workplace safety at your organization.

If you have any questions about the survey, you can contact SAFE Work Manitoba at <EMAIL>.

If you have any questions about how the information will be used by <ORGANIZATION> please contact <EMAIL>.

Thank you again for taking the time to complete this survey.

SAFE Work Manitoba Climate Safety Survey
Paper survey

As the paper questionnaires are distributed to employees, the following should be explained:

- The survey is being conducted for SAFE Work Manitoba and asks a series of questions about workplace safety. It should take about three to five minutes to complete.

- Both <Organization> and SAFE Work Manitoba are very interested in your perceptions of safety in the workplace. While your participation is voluntary, we hope that you will agree to take part in the survey and contribute your valuable insight.

- Once you have completed the survey, please fold it in half, place it inside the envelope provided, seal it, and return it to <NAME/POSITION>.

- All the information you provide will remain anonymous. When you return the survey, all of your responses will be confidential and will not be associated with you in any way.

- The results of this survey will be reported to SAFE Work Manitoba and <Organization> in such a way that no individual's answers can be identified.

- The results of the survey will help <ORGANIZATION> improve workplace safety for all employees.

- (OPTIONALLY) The results of the survey will be shared with the Safety Committee, Safety representative, and/or all staff.

Are there any questions?