

Manitoba Integrated & Standardized Safety Training

Final Report May 2018



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Section 1: Executive Summary

The primary goal of the Manitoba Integrated Standardized Safety Training (MISST) project was to conduct research leading to the development of a conceptual model that could guide the creation and implementation of a standards-based safety training system for Manitoba's skilled building trades. This goal supports Manitoba's Five-Year Plan for Workplace Injury and Illness, which has as goals: 1. To create a genuine culture of safety and 2. to reduce workplace injury.

Working towards developing uniform training standards and a system by which those standards can be integrated into the commercial construction industry will help to ensure that the safety training provided to workers and employers throughout Manitoba is cost effective, consistent, reliable and transferrable.

Project Goals

This research project was divided into three phases. The first phase focused on completing an environmental scan of the current safety training offered in Manitoba. The goals of phase 1 included:

1. Understanding the ways in which standards were being used to inform safety training in the commercial construction industry in Manitoba
2. Understanding the ways in which safety training occurs now, in particular, methods and approaches used
3. Characterizing the nature and capacity of the delivery infrastructure including exploring questions of who, what, where, when and why safety training occurs
4. Cataloguing findings to help ensure that any new system for consideration would build on the existing safety training infrastructure and make use of best practices

The second major phase of the research focused on a broad review of the ways in which standardized systems in general were developed and maintained. This phase of the research sought to:

1. Review standards setting organizations and standards development processes in other jurisdictions and other industries to determine if a consistent set of activities and resources could be identified that would help to inform a standards-based system model for Manitoba.
2. Review existing provincial standards-based safety training systems in Ontario and Newfoundland/Labrador to add to the model and to lay the foundation for harmonization of systems in future.

The last major phase of the project involved surveying the commercial construction industry and interviewing more than 40 industry stakeholders to understand:

1. the knowledge and experience the industry had currently with safety training standards and standards-based systems in general
2. the current industry perceptions of standards-based safety training as it pertains to the commercial construction industry

3. the current industry perceptions of specific components of typical standards-based systems
4. the view of respondents as to helpful supports and requirements for a system in Manitoba in particular relating to questions of operations, transition, legislation and enforcement

This report merges the results of the environmental scan, review of theoretical and jurisdictional approaches and the industry consultation toward proposing a conceptual model for a standards-based safety training system in Manitoba.

Report Organization

The report begins with the end in mind. The first section describes the conceptual model that was developed from the research. The report presents the model in the form of model schematics. This approach was taken to illustrate key model elements and required structures and to highlight the relationship between system elements. The approach also displays the key stakeholder involvement necessary to create an effective system. The key elements you will see in the conceptual model include:

1. the goals, objectives and underlying principles of a standards-based system
2. the structural components required by a standards-based system showing the various parts of the system and the interconnectivity between them
3. the lead organization's internal administrative structure including the relationship between standards development, system development and maintenance and enforcement.
4. the inputs and requirements of stakeholders presented in matrix form

The second section of the report provides detailed theoretical descriptions of standards-based systems specifically, descriptions of the various aspects of standards-based systems, agreed to methodologies, standards development processes and maintenance and enforcement strategies. This section provides the contextual background upon which the conceptual model was built.

As part of the second section, the report also provides outlines of two specific examples of standards-based safety training systems, the systems in place in Ontario and in Newfoundland and Labrador and a brief description of the approach used in British Columbia.

These systems exemplify standards-based safety training systems in practice and can offer Manitoba both best practices and lessons learned including descriptions of what is standardized, the process of standards setting, the methods of regulation and legislative structures, the ways in which certification and accreditation processes occur and the ways in which maintenance and tracking occurs.

The third section of the report focuses on industry and stakeholder's perception of standards-based systems, and industry views of the key components of a standards-based system in Manitoba by presenting the results and findings from in-person interviews and the comprehensive industry-wide survey. The survey and interview findings helped to inform the components of the model by indicating the kinds of system components the industry supported, the kinds of system components that were not supported or created uncertainty. The findings also revealed the views of industry as to specific system elements such as the appropriate lead

organization and the importance of legislation, regulation and enforcement in overall system success.

The final major section of the report presents the results of the environmental scan of current safety training in Manitoba and is followed by appendices containing the detailed data from the survey.

Key Observations

While a list of conclusions and recommendations is not part of the scope of this research, the following summary of the research team's observations is provided to indicate for the reader the research team's frame of reference developed during the research that ultimately provided the foundation for the model presented.

1. A large amount of safety training is conducted in the commercial construction industry in Manitoba currently. In fact, workers often receive safety training on the same topics multiple times, in various ways and to various levels of quality. On the other hand, workers can also make it to a job without adequate safety knowledge and skill. Manitoba's current approach lacks the reliability that comes with a system focused on ensuring the right skills and abilities at the right time.
2. Standards affecting safety in the commercial construction industry are being used in Manitoba currently in three ways.
 - a. standards are developed and used for activities such as flag persons, and first aid
 - b. some training providers make use of various standards by referencing the training they offer to an existing standard such as that of the Canadian Standards Association or the Oil Sands Safety Association. While the use of standards to reference training is a technique of some training providers to enhance the quality of their training, this referencing does not appear to be used consistently across the industry.
 - c. CSAM's Certificate of Recognition™ program develops standards and provides oversight. The COR program focuses on standards and methods for developing and maintaining organization safety programs. SAFE Work Manitoba's SAFE Work Certified program also focuses on organization-wide safety program development. The two programs have harmonized their requirements somewhat to allow those meeting the COR™/SECOR™ program requirements to also meet the SAFE Work Certified program requirements.
3. The safety training delivered in Manitoba varies in scope, content, method and duration. While a full review of safety training in Manitoba was outside of the scope of this study, it is reasonable to assume that the variation noted results in uncertainty among employers as to the skills and knowledge a worker might have when they arrive on the job. Two workers taking a program of the same name might have a significantly different learning experience and, as a result, a significantly different level of safety knowledge and skill.
4. The methods of assessment of worker safety knowledge and skill are not consistent nor are the results verifiable by employers at a point when needed. The inability to determine a worker's safety knowledge and skill leads employers to train and retrain and to rely on their own internal systems and methods to assess workers and to decide if the training their workers have received is adequate.

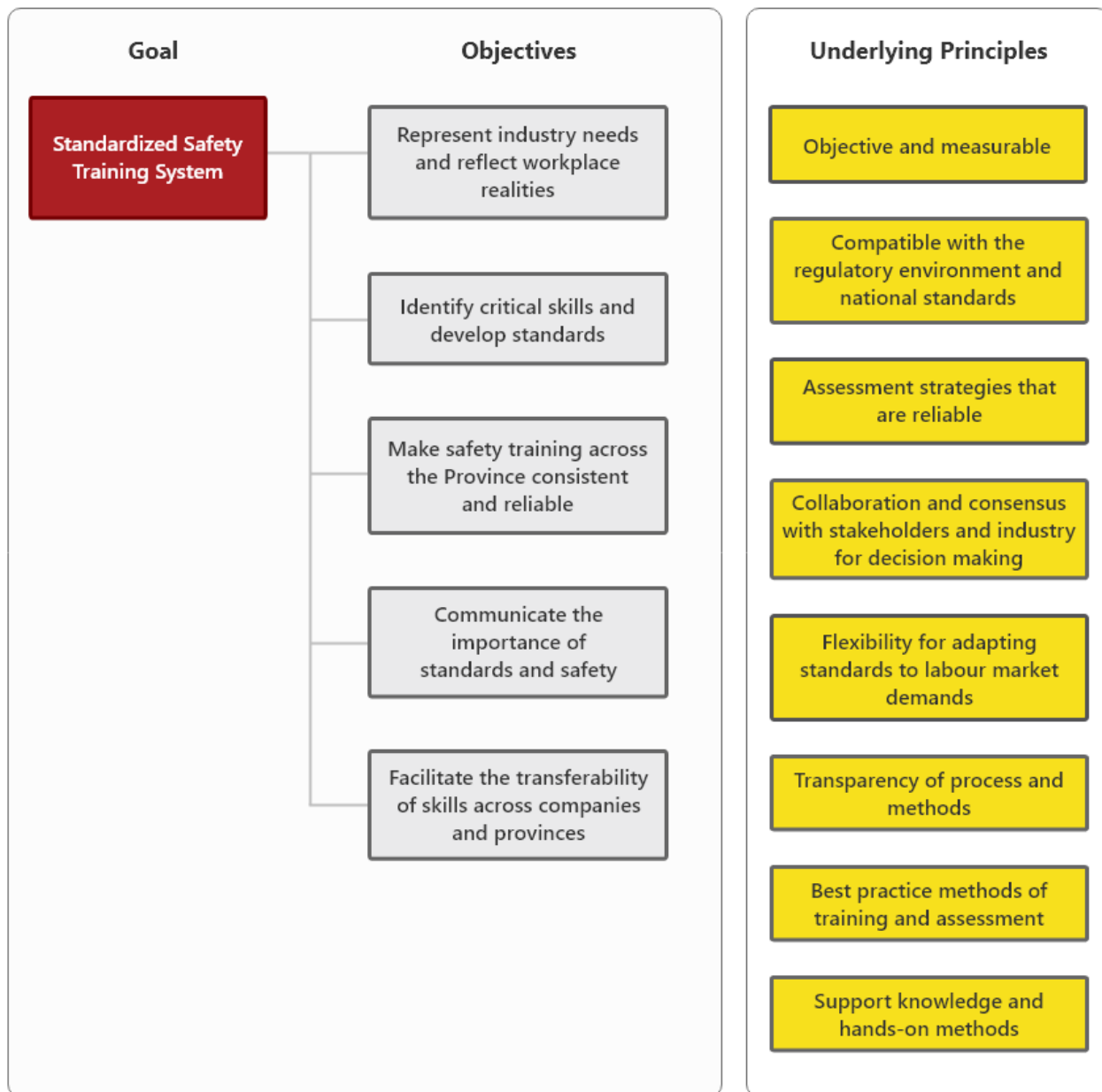
5. The legislative requirement for safety training in Manitoba lacks specificity when compared to that of other provinces such as Ontario and Newfoundland/Labrador. Terms such as “reasonably practicable” and “competent person” in the Manitoba Act create the conditions within which uncertainty can arise as to what amount and type of training is reasonably practicable and what a competent person is as it relates to trainers. That uncertainty can also contribute to the variations mentioned above occur.
6. Standards-based safety training systems have been successful in reducing workplace injuries as evident from Ontario and Newfoundland/Labrador’s experience. While not without their own challenges, the two provincial systems report significant reductions in injuries in topic areas where standardized training occurs. Newfoundland/Labrador also reported that their central tracking/management system for both maintenance and enforcement of the system, specifically certification and accreditations held by trainers and workers was one of their most important elements while Ontario mentioned the lack of such a system as one of their biggest challenges.
7. Regarding standards-based systems in general:
 - a. they are structured and maintained as ongoing concerns, meaning they are continuous in nature and require a lead organization with the appropriate resources to manage, maintain and improve the system.
 - b. they require process-oriented stakeholder input and support to develop industry validated standards and to support implementation
 - c. they typically offer a certification program for those who are the object of the standards and an accreditation program for those who deliver various aspects of the system such as training and assessment
 - d. they typically offer a method of assessment that is fair and reliable
8. Regarding stakeholder views of standards-based safety training systems in Manitoba:
 - a. There is unanimous support for development of a standards-based safety training system in Manitoba. This support existed across all stakeholder groups at an almost 100% level and across all interviews.
 - b. There is large majority support (+80%) for a system that standardizes both training content/methods and trainer/training provider requirements
 - c. There is large majority support for a system that standardizes requirements for delivery of site-specific training.
 - d. There is large majority support for choosing topics for standardization based on injury data and industry input.
 - e. There is large majority support for the provision of resources to support transition from existing methods to a new system, in particular, those related to costs (actual costs, resource costs, etc.) and the time to comply.
 - f. There is a view that a system should be legislated although most stakeholders indicated they would participate in a voluntary system if it added value.
 - g. There are concerns about the cost of funding such a system and ensuring overall effectiveness of the system.
 - h. There are concerns that come with any new system related to possible disruptions on activities and on having the ability and resources required to meet new standards.
 - i. There is large majority support for resources to facilitate transition to a new standards-based system, with incentives to reduce costs being the most crucial.

Section 2: Model Schematics

The research team has summarized the overall results into the following set of model schematics. The goal of presenting results graphically is to indicate the necessary requirements, interconnectedness between the various moving parts and the overall interconnectedness of an end to end system. It is important to remember that, as a system, a standards-based approach requires planning, execution, maintenance and continuous improvement.

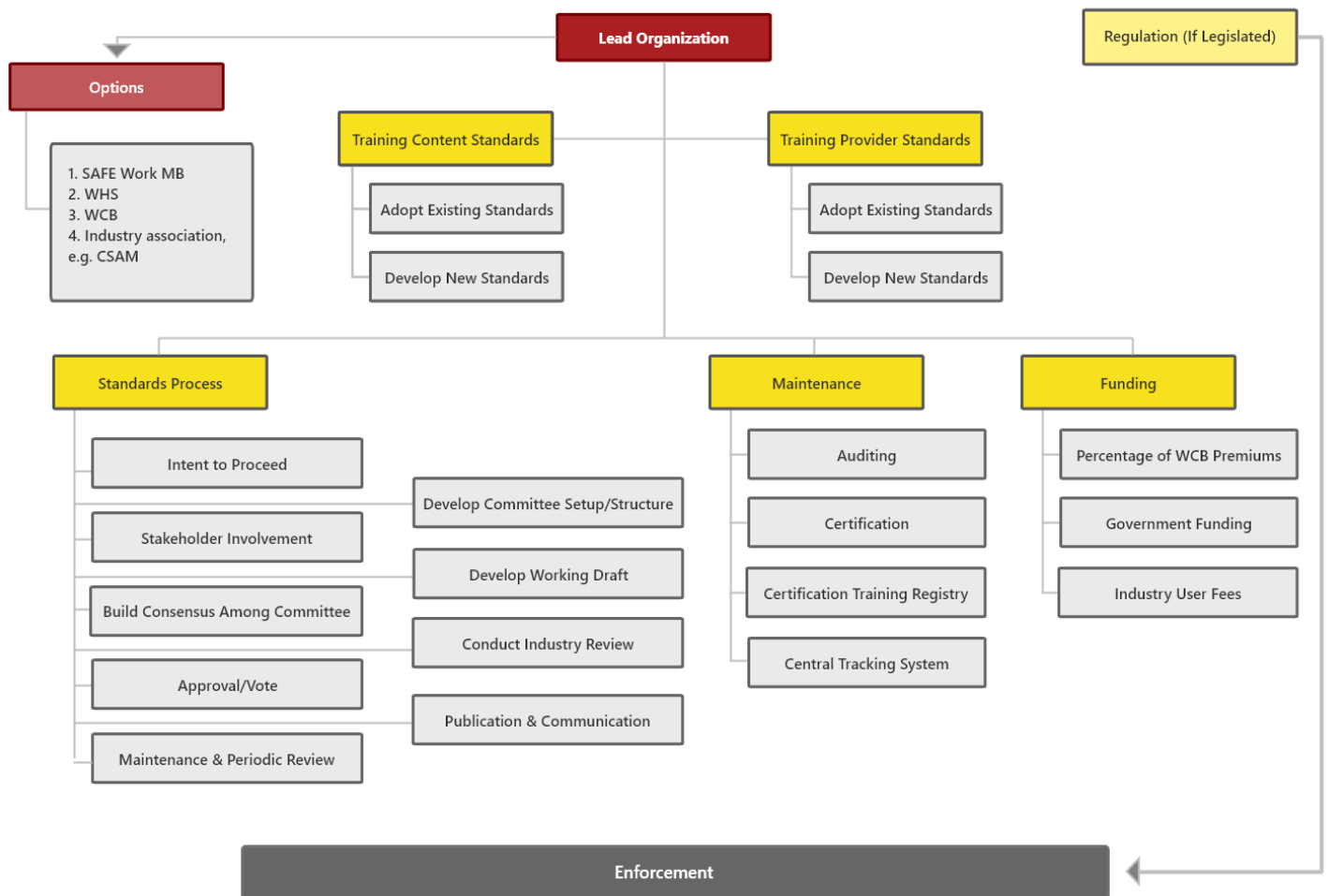
System Goals, Objectives and Underlying Principles

The following figure summarizes the objectives and underlying principles typically found in standards-based training systems. Creating such a system improves the reliability of the system to produce necessary outcomes, in this case, safe workers who are prepared consistently with the knowledge and skills required as defined by the industry.



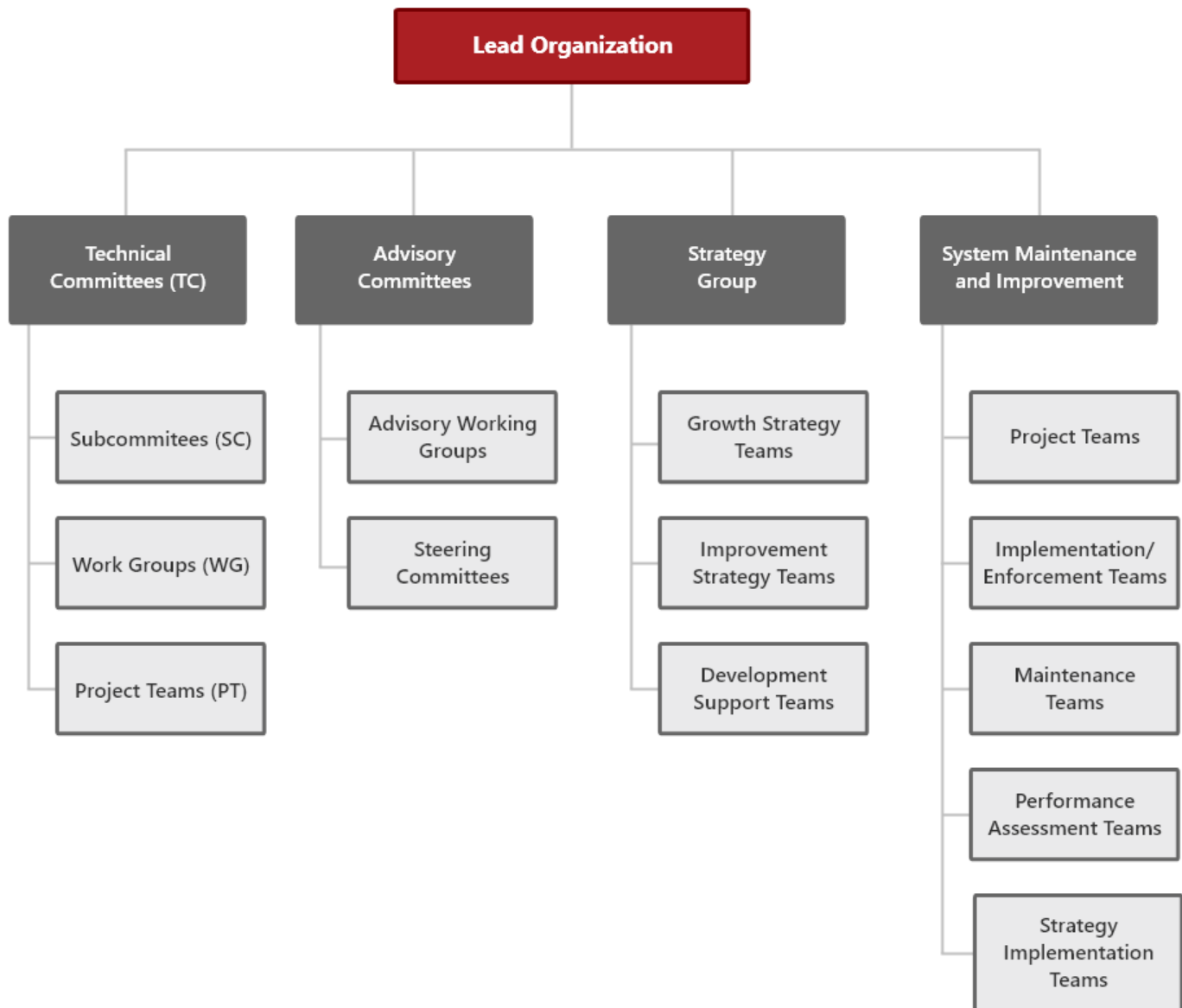
Program Elements

The following figure depicts the main program components found in typical standards-based systems. The information is presented as an operating model in that standards-based systems all have a lead organization responsible for the various program components.



Lead Organization Structure

The following diagram illustrates several of the main operational units typically found in a lead organization in a standards-based system. Typically, development and validation of standards is done by a unit staffed with specialized knowledge in the area of standards development and validation. As well, since the work of standards-based systems is dependent upon stakeholder contribution, a unit responsible for maintaining and growing the connection to industry is helpful. The other areas of requirement are in the review and improvement of the system itself and the strategic direction for the system.



Application in Manitoba

The following matrix illustrates the possible roles, activities and considerations various stakeholders in Manitoba would need to consider should a standards-based system be initiated. While not entirely comprehensive, the activities described would be typical for stakeholders in the development, roll out and maintenance of a standards-based system.

Model	Stakeholder Inputs and Requirements						
	SAFE Work MB	Gov't Agencies (WS&H)	Associations	Private Training Providers	Unions	Colleges and PVIs	Companies
Industry Analysis	<ul style="list-style-type: none"> • Provided input to the research 	<ul style="list-style-type: none"> • Provided input to the research 	<ul style="list-style-type: none"> • Provided input to the research 	<ul style="list-style-type: none"> • Provided input to the research 	<ul style="list-style-type: none"> • Provided input to the research 	<ul style="list-style-type: none"> • Provided input to the research 	<ul style="list-style-type: none"> • Provided input to the research
Standards	<ul style="list-style-type: none"> • Develop or participate in developing training standards (course and training provider standards) • Develop/ provide resources for transition to new system 	<ul style="list-style-type: none"> • Provide support during the standards developing process • Confirm standards meet minimum regulatory needs • Consider adjusting legislation to include standards 	<ul style="list-style-type: none"> • Develop or participate in developing training standards (course and provider) • Provide support to members during the standards development process • Conduit to industry for committee work • Disseminate resources during transition 	<ul style="list-style-type: none"> • Provide support during the standards development process • Adopt the standards and adjust training to reflect standards • Influence the content of standards, training provider and instructor standards 	<ul style="list-style-type: none"> • Provide input to the standards developing process • Act as conduit for committee members • Disseminate available resources during transition • Influence the content of standards • Confirm standards align with collective agreement needs 	<ul style="list-style-type: none"> • Provide support during the standards development process • Offer expertise for committee participation and to champion using standards 	<ul style="list-style-type: none"> • Engage on committees to have direct input into the content of standards • Adopt standards and align safety training policies and methods to meet the standards
Training	<ul style="list-style-type: none"> • Develop or oversee development of course content as support resource during transition • Assess course materials and methods submitted by accrediting partners • Maintain tracking system and auditing process 	<ul style="list-style-type: none"> • Ensure content meets existing regulation 	<ul style="list-style-type: none"> • Participate in developing course content and methods by adjusting current courses to meet standards • Develop or supply resource materials to members or others during transition to new system 	<ul style="list-style-type: none"> • Modify existing courses to align with standard • Apply to lead organization to have courses and trainers accredited • Use central tracking system to maintain student certification • Deliver courses to level of standard 	<ul style="list-style-type: none"> • Input to course content • If training provider, modify courses, become accredited, use central tracking system, deliver courses 	<ul style="list-style-type: none"> • Input to course content • If training provider, modify courses, obtain accreditation, use central tracking system, deliver courses 	<ul style="list-style-type: none"> • If training provider, modify existing courses to meet standards • Obtain accreditation for in-house trainers • Use central tracking system to view workers' certifications and trainers' accreditations • Review training policies and programs for alignment with standard

	SAFE Work MB	Gov't Agencies (WS&H)	Associations	Private Training Providers	Unions	Colleges and PVIs	Companies
Certification	<ul style="list-style-type: none"> • Create or participate in creation of certification program • Certify individual workers or maintain central tracking system and oversee use of system by accredited providers 	<ul style="list-style-type: none"> • Provide support and referrals • Consider adding certification to legislation 	<ul style="list-style-type: none"> • Support member organizations in getting workers certified • Help members in their efforts to adopt standards • Consider ways in which certification can be integrated with existing programs 	<ul style="list-style-type: none"> • Act to ensure that assessment strategies are executed correctly and engage central tracking system as required to maintain worker certification 	<ul style="list-style-type: none"> • Help workers obtain certification 	<ul style="list-style-type: none"> • Act to ensure that assessment strategies are executed correctly and engage central tracking system as required to maintain new worker certification 	<ul style="list-style-type: none"> • Act to ensure workers are certified or train and certify workers • Use accredited providers to deliver training and to maintain central tracking system certifications for workers
Accreditation	<ul style="list-style-type: none"> • Provide or participate in developing accreditation program • Accredited training programs and providers • Oversee and maintain program and provider accreditation • Maintain central tracking system showing accredited programs and providers 	<ul style="list-style-type: none"> • Consider adding accreditation to legislation 	<ul style="list-style-type: none"> • Participate in developing accreditation program • Act as conduit to industry for committee members • Consider ways in which accreditation can be integrated with existing programs 	<ul style="list-style-type: none"> • Participate in the accreditation development process • Seek to become accredited • Maintain accreditation 	<ul style="list-style-type: none"> • If training provider, participate in the development process • Seek accreditation • Maintain accreditation 	<ul style="list-style-type: none"> • If training provider in standards system, participate in the accreditation development process • Seek accreditation • Maintain accreditation 	<ul style="list-style-type: none"> • If training providers, participate in accreditation development process • Seek accreditation • Maintain accreditation
Enforce and Implement	<ul style="list-style-type: none"> • Oversee development of or contribute to development of enforcement rules • Review or support the review of central tracking system to determine certificates 	<ul style="list-style-type: none"> • Consider adding enforcement to WS&H mandate • Provide input into enforcement rules and methods • Form policy considering strategic importance of standards 	<ul style="list-style-type: none"> • Contribute to developing enforcement rules • Support members in learning about enforcement requirement and principles • Review ways in which enforcement rules could be integrated into 	<ul style="list-style-type: none"> • Contribute to enforcement content as it relates to accreditation • Submit required documents or other requirements of enforcement 	<ul style="list-style-type: none"> • Contribute to enforcement content as it relates to accreditation and certification • Submit required documentation if accredited training provider • Help members understand 	<ul style="list-style-type: none"> • Contribute to enforcement content as it pertains to accreditation and certification • Submit required documentation if accredited training provider • Help organizations 	<ul style="list-style-type: none"> • Contribute to enforcement rules • Submit required documentation if accredited training provider • Help organizations understand enforcement requirements and principles

	SAFE Work MB	Gov't Agencies (WS&H)	Associations	Private Training Providers	Unions	Colleges and PVIs	Companies
	<p>achieved and renewed, and to support enforcement standards</p> <ul style="list-style-type: none"> • Oversee auditing or conduct audits as defined in enforcement rules • Conduct or participate in periodic review process for enforcement rules • Facilitate the creation of or create management systems 		existing programs		enforcement requirements and principles	understand enforcement requirements and principles	
Leadership	<ul style="list-style-type: none"> • Facilitate or participate in overall system strategy development • Facilitate or participate in collaboration between sectors and stakeholder groups • Support others or implement directly • Engage business and community leaders • Monitor and report on system success or review system success reports 	<ul style="list-style-type: none"> • Show support for system publicly 	<ul style="list-style-type: none"> • Participate in system strategy development • Participate in collaboration between stakeholders including committee members • Consider ways to integrate system activities into existing programs • Support members in implementing system requirements 	<ul style="list-style-type: none"> • Support use of system 	<ul style="list-style-type: none"> • Support use of system 	<ul style="list-style-type: none"> • Support use of system 	<ul style="list-style-type: none"> • Support use of system

	SAFE Work MB	Gov't Agencies (WS&H)	Associations	Private Training Providers	Unions	Colleges and PVIs	Companies
Public Messaging	<ul style="list-style-type: none"> • Develop strategy or participate in strategy development • Implement comm. strategy either as lead or as major supporter, e.g. mass media campaigns, targeted programs • Disseminate information to other sectors in Manitoba 	<ul style="list-style-type: none"> • Participate using typical methods to communicate support and value 	<ul style="list-style-type: none"> • Develop or participate in developing strategy for organization focused on using current media channels and consider programs targeted to members who would benefit 	<ul style="list-style-type: none"> • Input to comm. strategy • Use resources provided by lead organization to announce participation in standards program and show ongoing participation i.e. logos, accreditation marks etc. 	<ul style="list-style-type: none"> • Input to comm. strategy • Use resources provided by lead organization to announce participation in standards program and show ongoing support i.e. logos, accrediting marks etc. 	<ul style="list-style-type: none"> • Input to comm. strategy • Use resources provided by lead organization to announce participation in standards program and show ongoing support i.e. logos, accrediting marks etc. 	<ul style="list-style-type: none"> • Input to comm. strategy • Use resources provided by lead organization to announce participation in standards program and show ongoing support i.e. logos, accrediting marks etc.
Funding	<ul style="list-style-type: none"> • Develop or participate in developing program budgets • Collect fees if lead organization • Distribute and steward funds if lead organization 	<ul style="list-style-type: none"> • Consider funding 50% of system activities • Consider providing incentives such as reduced WCB premiums 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Pay user fees if user fee model in place for accredited organizations 	<ul style="list-style-type: none"> • Pay user fees if user fee model in place for accredited organizations 	<ul style="list-style-type: none"> • Pay user fees if user fee model in place for accredited organizations 	<ul style="list-style-type: none"> • Pay user fees if user fee model in place for accredited organizations

Section 3: Safety Training Systems, Standards and Models

Introduction

Training is an important component of a strong workplace injury prevention program. Through training, employers can help workers address workplace hazards before they get hurt. Safety training programs can reduce the number and severity of workplace injuries substantially while also reducing costs to employers (Cohen and Colligan, 1998)¹.

This section of the report describes the important components of typical standards-based systems, in particular, several types of common systems and the steps in process required to create and maintain standards-based systems. This review demonstrates the agreed to methodologies any group of stakeholders can use to design and develop a standards-based training system.

Since the success of standards-based systems rely entirely on the system stakeholders, it is useful to describe and work from a common understanding of the ways in which such systems are created, maintained, improved and enforced. The information in this section of the report was derived from a literature review and interviews with several expert-practitioners in Manitoba and other provinces in Canada.

Observations

The multitude of examples of standards-based systems reviewed all display similar components including:

- A lead organization with the appropriate resources to manage, maintain and improve the standards and the system itself. Typically, this type of organization either possesses or can possess the expertise to carry out the requirements defined in the system and they possess the resources and mandate to execute the work effectively.
- An appropriately defined and validated set of behavioural standards and/or competencies relating to the actions of individuals on the job, developed by consensus and including industry participation and validation. Standards can be created where none exist or modified and adopted based on existing standards. Either approach must ensure a reliable validation of the standards by system stakeholders.
- An administrative mechanism to oversee and ensure the maintenance, validity and reliability of the standards and activities undertaken within the system.
- An enforcement mechanism capable of maintaining the integrity of the system.
- A mechanism by which individuals and organizations can attain the defined occupational standards either as individual workers or as providers of training and assessment. The mechanism varies between:
 - a. “accreditation” style systems in which providers offering services such as training and assessment are examined by the lead organization to determine the

¹ Cohen, A. & Colligan, M. J. (1998) Assessing Occupational Safety and, Health Training: A Literature Review. National Institute for Occupational Safety and Health, Publications Dissemination, Cincinnati

degree to which their offering meets the predefined requirements of the standards-based system.

- b. “certification” style systems in which a lead organization certifies the competency of individuals directly based on an objective examination of the individual based on the standards.

Standards

The International Organization for Standardization (ISO) Guide 2:2004 defines a standard as a “document, established by consensus and approved by a recognized body that provides common and repeated use rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context”.² Within this broad definition, two types of standards are common: 1. product/process standards and 2. behavioural or skill standards. The standards discussed in this report relate to behavioural or skill standards such as those defined in an occupation or profession. *Behavioural or skill standards* are documents containing expected outcomes, actions and behaviours related to a specific activity domain, such as an occupation (National Standards System (NSS) Guide, 2006).³

In Canada, the well-developed National Occupational Standards system has resulted in the production of hundreds of occupational standards. These standards specify the performance that workers are expected to demonstrate in their work, and the knowledge and skills they need to perform effectively. Such standards tend to define an agreed-to minimum standard in an occupational area and consider all necessary statutory requirements. Although there are examples of standards systems in which the standards set are considered best practice or beyond the minimum required, for standards to be effective, they must reflect industry requirements accurately and, in some cases, must also be legally defensible.

Standards-based Training Systems

For the purposes of this study, the phrase *standards-based training system* was chosen to refer to a system that combines learning materials, instruction, assessment, and reporting to ensure an individual can demonstrate mastery of a defined set of knowledge and behaviours (standards) in a way that is reliable, acceptable to industry stakeholders and, in some cases, defensible.

In a standards-based training system, candidates learn and demonstrate the behaviour associated with a published standard with the occupational standard serving as the base for learning objectives defining what students are expected to know and be able to do prior to job entry. Typically, the knowledge and performance expectation of the training is referenced to the behavioural standard in a way that supports learner development of the capability to meet the standard. In the case of systems in which certification of competency is an expected outcome, the training system must not create the conditions within which unfair test-taking occurs.

² Developing ISO standards: <https://www.iso.org/stages-and-resources-for-standards-development.html>

³ National Standards System (NSS) Guide (2006). Key Considerations in the Development and Use of Standards in Legislative Instruments: Understanding the Partnership of the Regulatory and Voluntary Standards Systems. Canada

Main Components and Goals

A standards-based training system has three main components:

1. A defined set of skills and behaviours employees are required to demonstrate defined in a way that reflects the daily requirements of an occupation.
2. A defined set of requirements or standards indicating the ways in which learners achieve and demonstrate the expected behavioural outcomes described in the standards including training and assessment.
3. A defined set of structures, processes and tools by which administration, maintenance and enforcement of the system occurs.

While “what learners are required to learn” is shaped largely by the behaviour defined in the occupational standard, the “how learners will demonstrate mastery” is not informed by a standard unless one is developed. The mix of knowledge, experience-building and assessment used in a standards-based system, therefore, can become a standard unto itself. The administrative system required to support the standards and their achievement is developed through business rules and process development and implemented and maintained by a lead organization.⁴

Certification

Certification is defined as a non-governmental process of regulation within a community, profession or occupation (National Organization for Competency Assurance (NOCA) & Early, 1998)⁵.

Generally, *certification* refers to a process by which an individual or organization’s behaviours or systems are examined to determine the degree to which they meet a predefined set of requirements, those requirements often being standards. Certification can be a voluntary or mandatory process involving individuals or organizations attempting to meet defined eligibility requirements by passing a form of examination whether the examination is a test of competency, in the case of individuals or an assessment of methods and resources, in the case of organizations.

The goal of a certification process is to attest to the capability of organizations and individuals to act in ways that are defined by the standard. Certification programs often include training as one of their elements, but training is not a required component of a classic certification program (National Organization for Competency Assurance (NOCA) & Early, 1998).⁶

In the case of voluntary certification programs, if the program becomes accepted in an industry then the attained certificate may take on increased value, in some cases to the point that it has the power and mandate of a license.

⁴ Mansfield, B. (1993). Competence-based qualifications: A response. *Journal of European Industrial Training*, 17(3), 19-19.

⁵ National Organization for Competency Assurance (NOCA) and Early, L. A. (1998). *Starting a Certification Program*. NOCA Publication Committee, Canada.

⁶ National Organization for Competency Assurance (NOCA) and Early, L. A. (1998). *Starting a Certification Program*. NOCA Publication Committee, Canada.

Accreditation

Accreditation usually refers to a voluntary process of documentation, review and approval of an existing or new program or provider against a specific set of standards or stated requirements (National Organization for Competency Assurance (NOCA) & Early, 1998).

Accreditation in the case of standards-based training systems, is the process whereby a lead organization or organization identified as an accrediting body within the standards-based system, grants public recognition to a trainer, school, institute, college, university, or specialized program of study having met certain established qualifications or standards as determined through initial and periodic evaluations (Pennel, Proffit & Hatch 1971).⁷ Accreditation and certification can occur in the same system, for example, in a system that requires graduation from an accredited education or training program as part of a licensure or certification process.

Accreditation programs generally fall into one of two types: self-assessment or third-party assessment. In self-assessment systems, organizations maintain proof of their conformance to a standard and may provide their proof to an accrediting body; however, that conformance is not audited by a third party recognized for the purpose of auditing. Some self-assessment systems include a peer review process in which a named and accredited organization reviews and attests to the documentation the organization seeking accreditation has and maintains.

The other type of accreditation process includes a third-party assessment process. In these cases, a third party capable of conducting a reliable review of an organization's documented processes does so in the form of an audit. Audit results describe both strengths and deficiencies in the organization seeking accreditation and can result in accreditation being denied or delayed.

If a certification program has an education requirement, an education provider can be accredited to deliver their education or training to candidates of the certification program. By accrediting and monitoring the deliverer's methods of delivery, the certification program manager can be sure that the training the accredited organization delivers meets the requirements of the certification organization. In this way, the certification organization maintains the credibility of the certificate or *credential* they issue across successful certificate recipients. The distinctions are indicated by the object of their credentials: the individual for the certification and the organization or service for the accreditation. (National Organization for Competency Assurance (NOCA) & Early, 1998).

Accreditation Canada, for example, is an organization that works with providers, policy makers and the public to improve the quality and safety of health and social services. Accreditation Canada offers a process of accreditation that focuses on identifying what organizations in health and social services do well, where they could do better, and the ways in which they can make improvements based on the results. Accreditation Canada uses a peer review system in which reviewers, called surveyors, visit accredited organizations every four years to evaluate the extent to which they are meeting Accreditation Canada's standards. Surveyors also share their expertise and make recommendations. Accreditation Canada evaluates the results of the peer review to

⁷ Pennell, M.Y, J. R. Proffit, and T D. Hatch. 1971. Accreditation and certification in relation to allied health manpower. Washington, D.C.: U.S. Department of Health, Education and Welfare

determine whether an organization will be accredited and provides an accreditation report that identifies strengths and areas for improvement. The organization uses the report to create and implement action plans, continuing the cycle of ongoing quality improvement.⁸

Developing Standards

In reviewing more than ten standards development organizations, the research team found that even though the organizations differed in their methods, their standards development processes exhibited key commonalities or best practices that can be considered characteristic of good standards development. If these organizations differed, it was only in the emphasis placed on various aspects of the development process, not on the general principles.⁹

Organizations such as the Canadian Standards Association (CSA)¹⁰, International Organization for Standardization (ISO)¹¹, Institute for Credentialing Excellence (ICE-USA)¹², American National Standards Institute (ANSI)¹³, the Oil Sands Safety Association (OSSA)¹⁴ and the National Occupational Analysis (NOA)-Red Seal Program¹⁵ were reviewed to reveal a set of general principles and considerations governing the development of standards. Consistently, all of the reviewed programs emphasize the following key elements:

1. Standards statements need to be written in a clear and concise manner with the goal of creating a common understanding of the meaning of the standard.
2. Statements need to be objective and measurable. The emphasis on measurability reduces the need for subsequent interpretations of the standard and defines clearly the expectations or characteristics of the functions or behaviours required. Each provision should relate as closely as possible to end-use objectives, including performance. In some cases, provisions indicating the ways in which the standard can be achieved were also included.
3. Standards statements need to reflect the latest available materials and methods rather than those with a future orientation.
4. Statements should not inhibit further development or improvement in the field to which the standard relates, particularly in relation to technologies or other future oriented items.
5. Standards need to be compatible with the regulatory environment in which the standard will be implemented. Particularly, standards must consider the jurisdictions, Acts, regulations and statutes that affect the ways in which the standard will be adopted.
6. Standards need to be compatible with the system in which they will operate, specifically the technical, economic and public concerns, as well as other standards that may affect adoption. The goal is interchangeability between the standard and other standards and regulations.

⁸ Accreditation Canada: <https://accreditation.ca/international-accreditation>

⁹ Government of Canada. *Participating in the Standards System*: [https://strategis.ic.gc.ca/eic/site/oca-BC.nsf/vwapj/StandardsSystem.pdf/\\$FILE/StandardsSystem.pdf](https://strategis.ic.gc.ca/eic/site/oca-BC.nsf/vwapj/StandardsSystem.pdf/$FILE/StandardsSystem.pdf)

¹⁰ Canadian Standards Association: <http://www.csagroup.org/services/codes-and-standards/>

¹¹ International Organization of Standardization: <https://www.iso.org/standards.html>

¹² Institute for Credentialing Excellence (ICE): <http://www.credentialingexcellence.org/p/cm/ld/fid=32>

¹³ ANSI:

https://share.ansi.org/shared%20documents/Standards%20Activities/American%20National%20Standards/Procedures,%20Guides,%20and%20Forms/2017_ANSI_Essential_Requirements.pdf

¹⁴ OSSA: <http://ossa-wb.ca/about-ossa/about-ossa/>

¹⁵ NOA: <http://www.red-seal.ca/resources/n.4.1-eng.html>

7. Standards should not be internally contradictory, in that once a requirement is specified, it should not subsequently be varied or made optional within the standard.
8. Standards need to be developed by a process of consensus building between stakeholders, in an open and transparent manner in a committee environment, with the goal of reaching a single solution that reduces costs and improves quality.

To be credible, standards must have certain attributes as outlined below:

- The development must be overseen by an organization recognized as a legitimate developer of the standards, or a legitimate developer within the field in which the standard will be implemented.
- The development process must be open to input from all interested parties.
- The resulting standard must be documented and publicly available.
- The standard must be accompanied by a method for monitoring and verifying that organizations are complying with the standard.¹⁶

Types of Standards

In Canada, companies, governments, consortia and other standards developers, such as trade associations and national sector councils, create standards. These standards are created for limited or internal use, e.g., in a company or within a government agency, and for broader use across an industry, in the case of organizations like CSA¹⁷.

Some standards are created as voluntary consensus standards while others provide the foundation for mandatory certificate or licensure processes. In the case of voluntary standards, the standards process is market driven, sector based, industry led, and, in some circumstances, is government supported.

The two most common types of standards include:

- *A Consensus Standard:* A consensus standard is developed and approved through a defined consensus process involving a broad group of affected parties or their representatives typically in situations where no standard exists although standards from similar situations may be used to start the process.
- *A Harmonized Standard:* A harmonized standard is developed through the synchronization of existing documents on the same or similar subject, agreed to and approved by the participating standards development bodies. A harmonized standard can improve the integration between multiple standards for the benefit of those adopting the standards including the interchangeability of test results or recognition of credentials across jurisdictions. (This definition is based on the definition of “harmonized standards” in ISO/IEC Guide 2:1996, Standardization and related activities — General vocabulary)¹⁸. A harmonized standard does not necessarily replace the standards of each of the participating standards development organizations who may retain differences in presentation and even in substance based on each of their unique needs. The term

¹⁶ National Standards System (NSS) Guide (2006). Key Considerations in the Development and Use of Standards in Legislative Instruments: Understanding the Partnership of the Regulatory and Voluntary Standards Systems. Canada

¹⁷ Canadian Standards Association: <http://www.csagroup.org/services/codes-and-standards/>

¹⁸ ISO/IEC Guide 2: <https://www.iso.org/standard/24887.html>

“equivalent standard” is sometimes used to denote the same concept as “harmonized standard”.

Review of CSA Methods

To see a typical standards development process in action, the research team reviewed the Canadian Standards Association (CSA Group). The CSA develops standards through a consensus development process approved by the Standards Council of Canada (SCC).¹⁹ This process brings together volunteers representing varied viewpoints and interests to achieve consensus and develop a standard.

The fact that voluntary standards are developed by consensus encourages companies to use them. These voluntary standards are developed by committees of peers to improve activities in industries or in sub-components of industries such as safety. A process that includes industry and that makes use of research can produce more practical tools than a regulatory process, especially if the companies involved in the design and development, implement the system themselves.²⁰

While governments typically support standards development, they can also impose standards on industries through statutory and regulatory methods. Voluntary standards developed for private use often become mandatory when referenced within government regulation. The role of regulation in supporting compliance is often considered essential for the widespread adoption of new standards. Key examples of this are evident from the review of Ontario and Newfoundland and Labrador’s safety training systems. These are reviewed in detail in a later section.

The Standards Development Process

The actual development process used by the CSA is set out in documents published by the SCC and is based on International Organization for Standardization (ISO)²¹ and International Electrotechnical Commission (IEC) processes, as well as those of the World Trade Organization. Although CSA Group administers the process and establishes rules to promote fairness in achieving consensus, it does not independently test, evaluate, or verify the content of standards. In the CSA development process, the consensus process includes applying the following four principles:²²

1. Participation is inclusive, not exclusive
2. Interests are respected as are diverse views
3. Accountability is important
4. Consensus is achieved

In addition to a consistent development process, the CSA pays attention to the context within which the standard will be used and the application of the standard within an existing system of

¹⁹ Standards Council Canada: https://www.scc.ca/sites/default/files/migrated_files/DLFE-476.pdf

²⁰ National Research Council. 1995. Standards, Conformity Assessment, and Trade: Into the 21st Century. Washington, DC: The National Academies Press. <https://doi.org/10.17226/4921>

²¹ Developing ISO standards: <https://www.iso.org/stages-and-resources-for-standards-development.html>

²² CSA Directives and guidelines governing standardization, Part 2: Development process

standards and regulations. That is, new standards are considered within their context rather than in isolation.

Process goals include:

1. Striving for compatibility with relevant technical, economic, and public concerns
2. Ensuring the interchangeability of the standard with other standards and systems as much as possible
3. Reviewing and minimizing conflicts between standards

The rationale for considering context and interchangeability relates to the goal of broad acceptance by industry. A new standard that fits well with both regulation and other current standards in a field or industry is more likely to be adopted in a voluntary system.

Steps in the Process

To determine if various standards development processes adopted a consistent approach, the research team reviewed the processes describe in the 10 organizations above as well as organizations tasked to develop standards such as the National Occupational Analysis (NOA)-Red Seal Program²³, Ontario College of Trades and National Fire Protection Association (NFPA)²⁴. The research team identified the following 12 key processes:

1. Identify a Lead Organization

All the organizations reviewed for this section of the report were either lead organizations themselves or indicated the importance of the lead organization to provide the oversight for and management of the standards development process and in some cases also the enforcement and maintenance of the standards and the system outcomes.

2. Identify a Need/Intent to Proceed

Typically, a standards development process begins by identifying a need. Needs can be identified by any of the stakeholder groups (i.e. reactive), or they can be determined by analyzing industry data to determine a need. In Ontario and Newfoundland/Labrador, for example, the need for safety standards is defined by analysis of reported workplace injuries. Areas with greater numbers of injuries are itemized and made a priority for standards development.

In the development of a standard, it is important to publicize intent to proceed and assign the project to an existing or specially formed technical committee. As part of this initial phase, it is also helpful to conduct a situational analysis which will inform the public notice of intent. The notice of intent provides unidentified stakeholders an opportunity to request to participate, to offer comments, or keep abreast of the progress of a project. One of the keys to understanding industry needs is the active involvement of industry in the standards development process.

²³ CCDA. (2011). A guide to developing national occupational analyses. Canadian Council of Directors of Apprenticeship

²⁴ NFPA. (2016). An Introduction to the NFPA Standards Development Process.
file:///C:/Users/rquai/Downloads/codesstandardsbrochure_2016.pdf

3. Develop a Committee Structure

Key to any standards development process is the establishment of a technical committee (pre-existing or new) responsible for developing, approving, and maintaining the technical content of a draft or published standard in accordance with the policies and procedures of the standards development organization or jurisdiction.²⁵ In many cases, the technical committee establishes a smaller working group of experts to draft the standard for consideration by the full committee. The working group is helpful because getting to consensus on a first draft is often an iterative process.

According to the SCC and ANSI, a standards development committee typically should include:²⁶

- A clear understanding of the scope of the standard and any views the regulatory authority (if one exists) has with respect to the standard
- A representative of the regulatory authority with active participation
- An appropriate mechanism for coordinating with all interested parties.
- A balance of interests in the composition of the committee (NFPA and Red Seal Programs, for example stipulate no more than one third of voting members be drawn from one interest group)
- A balance of key stakeholders and eventual users

4. Ensure Stakeholder Involvement

The involvement of a broad range of stakeholders, with leadership from employers, is critical to the success of the development of standards. The nature and content of standards dictates that the primary input must come from employers and workers (Fretwell et al. 2001).²⁷ A primary reason cooperation and involvement is necessary is that standardization requires gathering information and developing compromises among the needs, interests, and capabilities of many different interested parties (National Research Council, 1995).²⁸

In most cases, employers are not the only movers in standards development. There needs to be a clear recognition, by other key stakeholders (government, unions, associations, and professional/technical associations) of the need for the standard if the development process is to be successful. In interviews with key representatives from Ontario and Newfoundland, for example, the importance of balanced representation was amplified, in particular relating to unionized and non-unionized workers and employers.

To generate interest among all stakeholders, the benefits of participation must be clear.

²⁵ CSA Directives and guidelines governing standardization, Part 1: Participants and organizational structure

²⁶ ANSI:

https://share.ansi.org/shared%20documents/Standards%20Activities/American%20National%20Standards/Procedures,%20Guides,%20and%20Forms/2017_ANSI_Essential_Requirements.pdf

²⁷ Fretwell, H. D., Lewis, V. M. and Deij, A. (2001). A Framework for Defining and Assessing Occupational and Training Standards in Developing Countries. World Bank, Human Development Network Education Department.

²⁸ National Research Council. 1995. Standards, Conformity Assessment, and Trade: Into the 21st Century. Washington, DC: The National Academies Press. <https://doi.org/10.17226/4921>

1. Employers must see the potential for improvements in worker productivity, safety, preparation and competence.
2. Union members must see that standards can improve job entry and mobility for their members.
3. Training institutions and providers must view standards as a way for their education and training programs to improve quality and gain acceptance in industry.

Literature suggests that if one stakeholder tries to develop standards unilaterally, there may be resistance to development (Fretwell et al. 2001). Organizations acting in isolation are not as effective at setting an industry standard as industry stakeholders acting in coordination (National Research Council, 1995). The consequence is that key users may ignore standards developed in isolation, or the standards may be looked at with suspicion.

While the benefits of broad stakeholder involvement are evident, a number of challenges arising from broad involvement have also been identified by standards developments organizations such as ISO. These challenges include:²⁹

- Some representatives and organizations may lack familiarity with standards development processes.
- Some participants may lack awareness of the role standards may play in effective work-based development systems.
- Some participants may not act on behalf of the group they represent but rather take on an individual perspective.
- Some participants may require more resources than others to participate effectively.³⁰

5. Develop the Working Draft

Once stakeholders are involved and committee structures are developed, the work of drafting the standard begins. To draft an effective standard, a working group engages in the following activities:

- research best practices and field-specific trends
- collect and review existing standards, regulations and other materials
- consult with subject matter experts, practitioners, client organizations, academics, and policy makers.
- Choose a methodology. Chinien (2012) in his review of the Red Seal program, identified the two methodologies most widely used to develop standards. They were: 1. Developing a Curriculum (DACUM), developed in Canada and 2. Functional Analysis (FA), developed in the UK.³¹

²⁹ Developing ISO standards: <https://www.iso.org/stages-and-resources-for-standards-development.html>

³⁰ Mansfield, B., & Andersson, L. G. (2004). Competence-based standards, training and learning: The development of employment-based standards and their transformation into learning modules. Unpublished report

³¹ Chinien (2012). Informing enhanced standard formats for the red seal program. Research Commissioned by the Canadian Council of Directors of Apprenticeship and Funded by Human Resources and Skills Development Canada

- Produce a working draft that includes agreed to content divided into distinct, consistent and easily identifiable sections to facilitate their incorporation by reference in codes and regulations where applicable.³²

There are a number of standards development references that can be used by a working group or technical committee. The International Standards Organization, for example, has developed the ISO working document “How to Write Standards” which sets out one method by which organizations can write clear, concise and user-friendly standards.³³

Once the working draft has been developed, it is then submitted to the full committee for review and further development of the technical content, if required. The review process can be conducted in the following way:³⁴

- a. Meetings are held either in person or by web meeting or teleconference or work is conducted by correspondence and drafts are developed by electronic means as agreed between the committee members.
- b. Decisions regarding technical content are by consensus and confirmed by ballot or recorded vote. Consensus should be more than simple majority but needn’t reflect unanimity. Consensus building requires that all views and objections be considered and that a concerted effort be made toward their resolution.
- c. Records are prepared and maintained including meeting notices and agendas distributed in advance of meetings.
- d. Meetings to approve a draft standard or an amendment are preceded by formal notice to committee members. Members are expected to attend all meetings and contribute to the work of the committee.
- e. Guests and observers at meetings are made aware that the meeting is for the purpose of the standards development process and that the results shall not be shared beyond their own organizations or discussed with the media or publicized in any way.³⁵

The working draft stage ends with a completed final draft. Prior to completion, the committee may also decide to publish the working draft more widely as a tool to generate feedback from industry. Unresolved technical objections that may arise during the wider consultation can be addressed by either the full committee or by the working group with validation done by the full committee.

6. Conduct Industry Review

Once a final draft is completed, the industry review stage of the process begins. This stage provides the opportunity for the wider industry to add to and validate the draft

³² CSA Directives and guidelines governing standardization, Part 3: Drafting of standards

³³ <https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/how-to-write-standards.pdf>

³⁴ CSA Directives and guidelines governing standardization, Part 4: Development of ANSI Standards

³⁵ Carroll, G. & Boutall, T. (2011). Guide to developing national occupational standards: Revised June 2011. Retrieved 2012, from UK Commission for Employment and Skills:

<http://www.ukces.org.uk/assets/ukces/docs/supporting-docs/nos/nos-guide-for-%20developers-2011.pdf>

standard prior to its acceptance by the committee. During this stage, the draft standard is distributed for broad industry review and comment. Industry input is sought from:

- Individual members of the industry including individual Committee Members.
- Committee members and stakeholders from other standards development processes or those who are familiar with complimentary standards or regulations that may affect the new standard.
- Other stakeholders including the public, if required

Typically, in broader consultations, the technical committee responsible for the new standard requires a number of items of information including:

- Identification and affiliation of the submitter (i.e., Technical Committee, organization, company).
- Identification of the item in the draft standard to which the input is directed.
- Statement of the problem and substantiation of the problem i.e. any supporting document(s) being proposed as a reference standard or expert opinion
- Proposed text of the input, including the wording to be added, revised, or deleted.
- The signature of the submitter, which may be an electronic signature if agreed to as part of the process

Upon receipt of comments, the input is reviewed with the full technical committee until a consensus on revisions is reached. The revisions are then added to a second draft and are segmented into a series of second revisions with each revision accompanied by a committee statement relating to the industry comments and the committee deliberations. An additional step often included is to conduct a review by an outside reviewer. This step is added to ensure that all users of the standard will be able to gain a common understanding of its contents.

Once the industry review has been completed, the pre-approval draft of the standard is prepared. In this stage, the responsible technical committee develops the second draft, which incorporates any changes to the first draft developed by the technical committee and the industry review.

7. Approve/Vote

Upon preparation of the second draft including changes arising from wider industry review, an approval vote by the committee on the revised technical content of the standard is conducted by ballot or recorded vote. The criterion for approval asks the questions:

- Are the technical requirements reasonable and justifiable considering the state of the art in the particular field?
- Does the draft meet the defined need, and is the scope of the draft consistent with the technical requirements included?

Committee votes are reviewed and recorded.

8. Publish and Communicate

Upon the consensus approval of the second draft, a final edit is conducted to verify conformity with editorial and procedural requirements. Once complete, the standard is published and disseminated.

Once the standard is published, it should be accompanied by a communication strategy aimed at informing the industry that the standard exists, and of its importance and impact. The communication plan should target industry representatives, and those who will be most influential in implementing the standard. In some cases a communication plan may be developed as part of the project plan to develop the standard. In these cases, the project charter will state who is responsible for developing and implementing the communication plan.

9. Maintain the Standard

Maintenance of the standard on a continuous basis is necessary to ensure it stays current and technically valid. The lead organization must have or delegate a mandate to review or oversee a committee to review the standards at predefined intervals. These organizations, according to the CSA and ANSI, have to review the standards regularly to ensure that they remain current, in particular with changing technology.

Periodic reviews are conducted to determine if a standard needs to change to reflect new practices or technologies. When a standard is being considered for maintenance action, the lead organization should provide sufficient notice to the interested stakeholders such that they may have ample opportunity to make their views known or to take such action as they consider appropriate.³⁶

³⁶ <https://www.scc.ca/en/standards/developing-standards>

Section 4: Safety Training Systems in Ontario, Newfoundland and Labrador and British Columbia

Ontario

Standardizing safety training in Ontario is mandated within their Occupational Health and Safety Act and its supporting regulations. Initially, the focus in Ontario was on standards for training providers with work now turning to standards for occupational training requirements such as for Working at Heights.

One of the key aspects of the Ontario approach lies in the specific and reinforcing nature of the regulations in specifying training and training provider requirements and the administrative authority to develop and enforce standards, specific training and tracking requirements. In addition to basic awareness training, the Act and regulations stipulate training for specific occupational requirements such as working at heights. While the regulation does not specify the training content itself, it does specify that the training must be approved by the appropriate authority, the Office of the Chief Prevention Officer (CPO) within the Ministry of Labour, and delivered by a training provider who is also approved by the Ontario CPO. The CPO then stipulates the specific standard required for the training and for the provider.³⁷

Overall, the Ontario system includes a number of interrelated organizations include the Ministry of Labour (MOL), the Office of the Chief Prevention Officer, Workplace Safety and Insurance Board (WSIB), Workers Health & Safety Centre, Occupational Health Clinics for Ontario Workers Inc. and 12 Health and Safety Associations (HSAs). The following schematic indicates the structural components of the system as they relate to the Ministry of Labour.³⁸

³⁷ <https://www.labour.gov.on.ca/english/hs/sawo/index.php>

³⁸ https://d3n8a8pro7vhmx.cloudfront.net/torontocsse/pages/15/attachments/original/1519315701/Education_Day_-_MOL_Updates_-_Feb_13_2018.pdf?1519315701

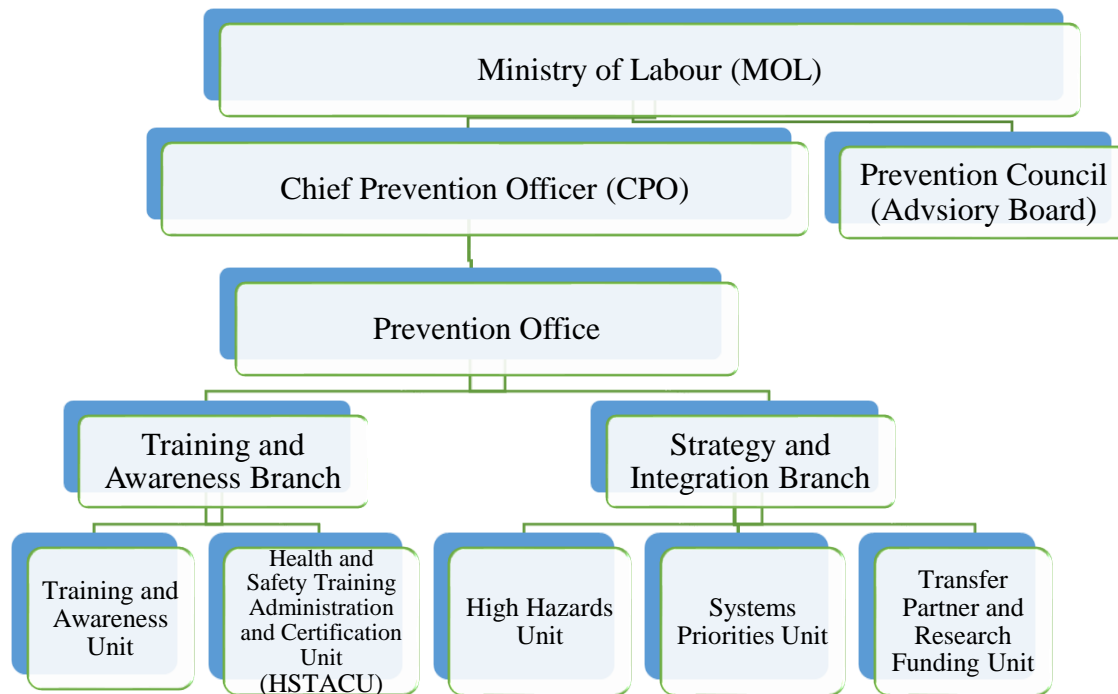


Figure: Structure of Ministry of Labour

The Ministry of Labour's mandate is to administer and enforce the Occupational Health and Safety Act with WSIB's mandate covering workplace injury and illness prevention, among other things.³⁹ The WSIB administers the Workwell Health and Safety Program providing audits and educational support to organizations to improve their occupational health and safety practices. Safe at Work Ontario (Ministry of Labour initiative) aims to improve workplace health and safety practices through enforcement of provincial legislation.

The Office of the Chief Prevention Officer is a key component of Ontario's standards-based system. As part of the Ministry of Labour, the Chief Prevention Officer is the administrative authority defined in the regulations. The office of the CPO is responsible for:⁴⁰

- Developing a provincial occupational health and safety strategy
- Preparing an annual report on occupational health and safety
- Exercising any power or duty delegated to him or her by the Minister under the Occupational Health and Safety Act
- Providing advice to the Minister on the prevention of workplace injuries and occupational diseases
- Providing advice to the Minister on any proposed changes to the funding and delivery of services for the prevention of workplace injuries and occupational diseases
- Providing advice to the Minister on the establishment of standards
- Exercising the powers and performing the duties with respect to training and certification

³⁹ <https://www.ontario.ca/laws/statute/90o01>

⁴⁰ <https://www.labour.gov.on.ca/english/hs/sawo/index.php>

- Establishing requirements for the certification of persons for the purposes of the safety system
- Exercising the powers and performing the duties with respect to accreditation of health and safety management systems and recognition of employers
- Monitoring the operation of designated entities and reporting to the Minister on the compliance of designated entities with the standards established
- Overseeing and funding of Health and Safety Associations and occupational health and safety research grants

As part of the Office of the Chief Prevention Officer, the Health and Safety Training Administration and Certification Unit (HSTACU) evaluates training programs submitted by third party training providers for approval. This evaluation includes the Working at Heights Training program and training provider standards as well as activities of the Joint Health and Safety Committees (JHSC) Training Program and Training Provider Standards.

HSTACU receives and processes the records of learners who complete approved training programs and administers quality assurance activities on approved training providers to assure continued quality of training. HSTACU also handles public complaints as part of its client services process.⁴¹

Another key component within Ontario's safety system is the Prevention Council. The Prevention Council advises the Minister of Labour and the Chief Prevention Officer on a wide range of occupational health and safety issues, including prevention of workplace injuries and illness, development of the provincial occupational health and safety strategy, and any significant proposed changes to funding and delivery of services under the Occupational Health and Safety Act. The OHSA stipulates that the members appointed to the Prevention Council must be representative of the key workplace partners (labour and employers) and that an equal number of members will represent each of these partners.⁴²

Ontario Working at Heights Program

After a significant safety event occurred, the Ministry of Labour modified the Occupational Health and Safety Awareness and Training Regulation (Ontario Regulation. 297/13) to include mandatory working at heights training requirements. Since April 1, 2015, employers in Ontario have been required to ensure that workers on construction projects who may use certain methods of fall protection complete working at heights training successfully. The training must meet the training program and provider standards established by the Chief Prevention Officer (CPO).⁴³

As of March 30, 2017, approximately 295,000 workers had completed the working at heights training successfully.

⁴¹Interview with the Prevention office, Ministry of Labour, Ontario

⁴²<https://www.ontario.ca/page/construction-health-and-safety-action-plan#section-6n>

⁴³ Interview with Ontario Building Trades, June 23, 2017

Overview of Working at Heights

The Working at Heights program has developed two standards, namely;

- Working at Heights Training Program Standard
- Working at Heights Training Provider Standard

The Working at Heights Training Program Standard sets out the requirements that must be met by training programs submitted to the Chief Prevention Officer (CPO) for approval. The program standard works in conjunction with the Working at Heights Training Provider Standard, which sets out the requirements that must be met by training providers seeking approval by the CPO to deliver an approved working at heights training program. The purpose of the Working at Heights Training Program Standard is to establish a mandatory minimum standard for high quality and consistent training for workers who work at heights in the Province of Ontario.

The Chief Prevention Officer oversees and accredits both the program of training and the training provider requirements. CPO approval is granted to those programs and providers meeting the published standards after a successful assessment and review of the program submitted. While reasonable efforts are made to ensure that the criteria of the training program standard are met during training delivery, it is the responsibility of employers to ensure compliance with the training requirements under the Occupational Health and Safety Act.

The Working at Heights Training Program Standard uses a modular format to allow for core theory training to be completed separately from practical training elements. This approach offers some flexibility for methods of training (classroom, online, blended) while also ensuring the practical requirements are met.

Employers of workers on construction projects who are required by Ontario regulations to use any of the following methods of fall protection must receive the CPO-approved training delivered by an approved training provider:

- travel restraint system
- fall restricting system
- fall arrest system
- safety net
- work belt
- safety belt

This training requirement is in addition to existing training requirements for workers including awareness training and any other training required under regulation.

The Working at Heights Training Program Standard outlines the minimum content required for a program to be approved by the CPO. The minimum content required includes learning outcomes, instructor qualifications and minimum training duration among other considerations for quality

training delivery. These standards were developed in consultation with labour and employer representatives from a variety of sectors, including the construction sector.⁴⁴

The standard outlines requirements in the following areas:

- Design
- Delivery Mode
- Resource Materials
- Equipment
- Learning Outcomes
- Learner Evaluation
- Validity and Refresher Training

Upon completion of the working at heights training program, it is the training provider's responsibility to give workers proof of training. Typically, proof will be in the form of a wallet-sized card, which, under the Working at Heights Training Provider Standard, must include the following information:

- Employee's name
- Name of the approved working at heights training program
- Program identification number
- Date of successful completion of the approved training program
- Statement of worker's successful completion of the program
- Name of the approved provider
- Signature of the evaluator

After an employee receives this card, his or her information is added to the Ministry of Labour's database. Construction employees who have completed an approved program will not have to train again for another three years. After three years, workers are required to complete a half-day "refresher" program. If a worker changes his or her employer within the three-year period, their training is still valid and does not need to be repeated at the new place of work. However, the new employer is responsible for training the employee on specific fall protection equipment used at the site.⁴⁵

Ontario Joint Health & Safety Committee Training Standard

The other main area where Ontario has developed and maintains standards is in relation to organizational health and safety committees and more broadly, organizational safety programs. Known as "Joint Health and Safety Committees (JHSC)" a JHSC is a committee of at least two people who represent the workers and the employer at a workplace. Their primary role is to identify workplace health and safety issues and bring them to the attention of the employer. Section 9 of OHSa requires a JHSC at:⁴⁶

⁴⁴ <https://www.labour.gov.on.ca/english/hs/pubs/wah/index.php>

⁴⁵ Interview with Ontario Building Trades, June 23, 2017

⁴⁶ <https://www.labour.gov.on.ca/english/hs/sawo/index.php>

- Any workplace that regularly employs 20 or more workers
- Construction projects expected to last three months or longer with 20 or more workers
- Any workplace (other than a construction project) to which a designated substance regulation applies
- Any workplace where an order has been issued under OHSA section 33, dealing with toxic substances
- Any workplace where the Minister of Labour orders one to be established.

The role Health and Safety Committees assume in an organization includes activities such as:

- identifying potential health and safety issues and bringing them to the employer's attention
- remaining informed of any employer-led health and safety developments in the workplace
- inspecting the workplace at least once a month
- helping to raise awareness of health and safety issues in the workplace

To achieve stated outcomes, committees hold regular meetings, conduct regular workplace inspections and make written recommendations to the employer for the improvement of the health and safety of workers.⁴⁷

Unless otherwise prescribed in regulation, the Occupational Health and Safety Act requires that at least two members of a JHSC (one representing workers and one representing persons who exercise managerial functions) be certified.⁴⁸

Until April 1, 2012 the Workplace Safety and Insurance Board was authorized to certify committee members under the Workplace Safety and Insurance Act, 1997 (WSIA).⁴⁹ As of April 1, 2012, the Ministry of Labour's Chief Prevention Officer became authorized to certify members under the Occupational Health and Safety Act (OHSA) [clause 7.6(1)(b)]. Any person who was certified under the WSIA before April 1, 2012 retained their certification under the OHSA.

In Ontario, the office of the CPO establishes the standards required for committee members to be approved health and safety committee participants. The CPO also stipulates standards that must be met by the training provider with respect to an approved committee member training program. The Health and Safety Committee participant standard includes 2 parts: Basic Certification and Workplace-Specific Hazard Training. Refresher training is required every three (3) years to maintain certification. A certified member may request a one-time exemption from refresher training if he or she is an active member (i.e., engaged as a member of a workplace JHSC within the past twelve months). The standards stipulate duration, methodology, content areas to be covered and length of time allowed to complete the training program (6 months).

⁴⁷ Interview with the Prevention office, Ministry of Labour, Ontario

⁴⁸ <https://www.ontario.ca/laws/statute/90o01>

⁴⁹ http://www.wsib.on.ca/WSIBPortal/faces/WSIBHomePage?lang=en&_afzLoop=341502316492000&_afzWindowMode=0&_afzWindowId=null#%40%3F_afzWindowId%3Dnull%26_afzLoop%3D341502316492000%26lang%3Den%26_afzWindowMode%3D0%26_adf.ctrl-state%3Dfvtmac0hp_4

Training provider standards focus on ensuring that instructors meet a specified set of criteria including a valid training qualification as defined by the standard as well as instructor delivery expectations such as creating a positive learning environment, assessing learning and performance and engaging the learner.⁵⁰

The standard outlines requirements in the following areas:

- Training Provider Requirements
 - Legislative and Insurance Requirements
 - Advanced Course Materials
 - Learning Needs
 - Alternative Delivery Modes
 - Program Materials
 - Personal Protective Equipment (PPE) and Other Equipment
 - Learning Environment
 - Proof of Training Completion
 - Support for Transfer of Learning
- Training Instructor Requirements
 - Instructor Qualifications
 - Instructor Delivery Expectations
 - Create Positive Learning Environments
 - Engage Learners
 - Assess Learning and Performance
- Evaluator Requirements
- Code of Ethics
- Administration
 - Approvals Process
 - Training Records
 - Maintenance of Instructor Qualifications
 - Maintenance of Training Provider Approval⁵¹

Other Standards Development Systems in Ontario

There are two other organizations in Ontario developing standards and work-based programs having safety components. They are 1. The Ontario College of Trades and 2. The Technical Standards and Safety Authority.

⁵⁰ Joint Health and Safety Committees:

https://www.labour.gov.on.ca/english/hs/pubs/jhsc_framework.php

<https://www.labour.gov.on.ca/english/hs/pubs/jhsc/index.php>

⁵¹ <https://www.labour.gov.on.ca/english/hs/topics/certification.php>

The Ontario College of Trades (the College) is an industry-driven, professional regulatory body that protects the public by regulating and promoting the skilled trades. The main responsibility of the College is to ensure that individuals performing the skills of compulsory trades have the training and certification required to legally practise this trade in Ontario. The College manages the apprenticeship program in Ontario and is responsible for:⁵²

- Issuing certificates of qualification and statements of membership
- Establishing apprenticeship programs and other training programs
- Maintaining a public registry of its members
- Determining appropriate apprentice to journeyperson ratios
- Conducting trade classification reviews
- Establishing the scope of practice for trades

The College provides representation to the Canadian Council of Directors of Apprenticeship (CCDA) and the Interprovincial Standards and Examination Committee (ISEC) along with participating in the development and review processes for the Red Seal Examinations and National Occupational Analyses (NOA). Additionally, the College participates in CCDA initiatives such as Strengthening the Red Seal through Occupational Performance Standards (OPS) and use of the Red Seal exams where available for the Certification of Qualifications (C of Q) designation process.⁵³ The College develops training standards for more than 40 occupations and curriculum delivery standards, developed in partnership with training delivery partners.

The Technical Standards and Safety Authority (TSSA) was established in 1997 to deliver public safety services on behalf of the government of Ontario. TSSA is a not-for-profit, self-funded organization dedicated to enhancing public safety. Industries regulated by TSSA in Ontario include: Elevating Devices, Amusement Rides, Boilers and Pressure Vessels, Fuels and Upholstered and Stuffed Articles. Governed by a 13-member board of directors, TSSA is accountable to the Ontario government, the residents of Ontario and its other stakeholders.⁵⁴

TSSA is required to enforce the Technical Standards and Safety Act and regulations and is funded by fee payer industry customers. In addition, the organization has embraced a much broader role than compliance. Through both promotion and enforcement actions, TSSA seeks to continuously improve safety.

In its role as a Delegated Administrative Authority (DAA), TSSA delivers services such as:

- Inspections of facilities and procedures,
- Investigations and Prosecutions
- Training and Certification,
- Design reviews of new equipment and facilities
- Optional training and assessment programs

⁵² <http://www.collegeoftrades.ca/>

⁵³ Ontario College of Trades: <http://www.collegeoftrades.ca/about>

⁵⁴ <https://www.tssa.org/en/index.aspx>

- Public education and consumer information programs
- Annual reporting on safety performance

TSSA limits its service delivery to the industries mentioned earlier offering certification of occupations regulated under the Act and helping to ensure all certification programs are responsive to industry needs through a Training and Certification Advisory Board (TCAB) comprised of industry representatives. TSSA accredits training providers if they meet specific standards and conditions. Each person working toward certification must complete a prescribed course of study through a recognized training provider as well as at least one certification exam.

Newfoundland and Labrador

Newfoundland and Labrador are pioneers in standardized safety training in Canada for construction and other related fields and have been developing their current system for ten years.

Currently in Newfoundland and Labrador, there are 8 areas in which compliance-based standardized safety training is mandatory. There are also other areas where voluntary standards are being developed or have been announced to be developed in the near future.⁵⁵

Safety training standards in Newfoundland and Labrador are similar to Ontario in that they are regulation driven and focus on standards for training content and for training providers. However, in the case of Newfoundland and Labrador, every instructor delivering training must be approved by WorkplaceNL along with the training program they deliver. WorkplaceNL audits both the courses and the instructors.

As is the case in Ontario, the Newfoundland and Labrador legislation does not prescribe the standards themselves but rather indicates which workplace activities will be standardized. Unlike Ontario where authority rests with the Office of the Chief Prevention Officer, in Newfoundland and Labrador, program authority rests with the Workplace Health, Safety and Compensation Commission (Workplace NL).

While Newfoundland and Labrador's regulation refers to the "Commission" as the authority to develop standards for the certification of persons under the Occupational Health and Safety Act, enforcement is done by the Ministry of Labour's Safety and Health officers. They enforce the regulation through regular inspections to check training credentials and training provider credentials as indicated below.⁵⁶

⁵⁵ Interview with Workplace NL, June 30th 2017

⁵⁶ WorkplaceNL: <http://www.workplacenl.ca/CertificationTrainingStandards.whscc>

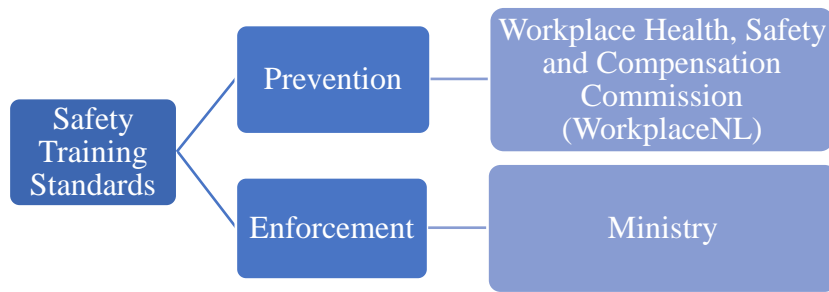


Figure: Safety Training and Enforcement Structure

Training Standards

WorkplaceNL has developed 8 standards, which include:

- Mine Rescue Certification Training Standard
- Confined Space Entry Certification Training Standard
- Fall Protection Certification Training Standard
- OH&S/WH&S Certification Training Standard
- Power Line Hazards Training Standard
- Traffic Control Person (TCP) Certification Training Standard
- Supervisor Safety Certification Training Standard
- First Aid Certification Training Standard

The standards apply to:

- Persons who are required under legislation to complete training as defined by the Commission.
- Employers who employ persons who conduct training programs as defined by the Commission (in-house staff trainer).
- Persons who are delivering certification training programs (external trainer).

The standards specify that trainers must apply and be approved by WorkplaceNL to deliver certification training. Trainers must complete and submit the Training Provider Registration Form located on WorkplaceNL's website⁵⁷.

Trainers are expected to develop their own curriculum to align with learning outcomes specified in the certification training program standards. Trainers are expected to cross reference the ways in which their training curriculum meets the learning outcomes defined in the standard. The proposed training curriculum must be submitted by the trainer along with the registration form

⁵⁷ <http://www.workplacenl.ca/CSE.whscc>

for approval by WorkplaceNL. In addition, the trainer must submit their qualifications with the curriculum and registration form for review and approval. WorkplaceNL may approve and register providers if they satisfy criteria with respect to:

- Competence of trainer(s)
- Delivery methods that meet the certification training standard
- Documentation and record keeping that adhere to the administrative requirements of WorkplaceNL
- Maintenance methods to preserve program integrity for both curriculum and delivery

The standards specify minimum requirements in:

- Competence of trainers
- Delivery of training
 - Use of learning outcomes
 - Use of adult learning principles
 - Prepared for comprehension level of student
 - Use of teaching materials and aids
 - Integration of evaluation and feedback
- Documentation, record keeping and adherence to administrative requirements of WorkplaceNL
- Recertification
- Maintaining program integrity and delivery

In developing their standards, WorkplaceNL used a process that included the following steps:⁵⁸

1. Conduct a cross jurisdictional scan of the industry, i.e. what's out there?
2. Engage with Employers Council, Newfoundland and Labrador Construction Safety Association (NLCSA), Federation of Labour and other stakeholders through surveys, town hall meetings and round table discussions.
3. Engage and consult with authorized training providers.
4. Develop training standards and work through a validation and approval process for the standards.
5. Publish, adopt and enforce the standards.

In Newfoundland and Labrador, funding of the standards system is drawn from workers compensation premiums paid by employers. A small portion of premiums paid goes toward prevention services & health and safety education. Both the Certification Training Unit and the Certification Training Registry (described below) are funded by fees.⁵⁹

⁵⁸Interview with Workplace NL, June 30th, 2017

⁵⁹ WorkplaceNL: <http://www.workplacenl.ca/aboutwhscc/certificationtrainingresources.whscc>

Safety Certification Training Registry (CTR)

A unique and valuable component of Newfoundland and Labrador's standards-based system is its online Certification Training Registry (CTR). The registry safely and securely stores the certification training records for an estimated 170,000 workers and allows workers, employers and OH&S officers to access electronic training records conveniently via a smartphone or any web-enabled device.

The CTR helps workers register for, receive, and stay current with the training they require for their job. Workers receive alerts when their training certificate is due to expire. Employers can easily confirm that workers and new hires have the training required to comply with OH&S legislation. Training providers and trainers can post their training schedules, create training records, and certify workers in one central location. The CTR provides OH&S officers with access to training records to ensure compliance in the workplace.⁶⁰

The CTR promotes an online marketplace for approved training providers to connect with employers and workers and ensure that stakeholders can access certification training from approved training providers and trainers easily and efficiently.⁶¹ CTR has been in operation since 2016 and has accepted 57,000 training records⁶².

During interviews with personnel from the HSTACU in Ontario, the importance of central tracking was raised. Ontario did not, at the time of interview, have a central tracking system and pointed to the difficulty they were experiencing managing the volume of requests for approval from training providers. Newfoundland and Labrador interviewees also mentioned that in their opinion, one of the most important reasons for the success of their standards-based system has been the CTR.

British Columbia

In British Columbia (BC) specific safety training requirements are referred to in the *Workers Compensation Act* and the Occupational Health and Safety Regulation. The system is managed by WorkSafeBC. WorkSafeBC was established by provincial legislation as an agency with the mandate to oversee a no-fault insurance system for the workplace. They partner with employers and workers in B.C. to do the following:⁶³

- Promote the prevention of workplace injury, illness, and disease
- Rehabilitate those who are injured, and provide timely return to work
- Provide fair compensation to replace workers' loss of wages while recovering from injuries
- Ensure sound financial management for a viable workers' compensation system

⁶⁰ <http://www.workplacenl.ca/CertificationTrainingStandards.whscc>

⁶¹ Certification Training Registry: [file:///C:/Users/rquai/Downloads/FAQ%20training%20providers%20-%20regi..%20\(2\).pdf](file:///C:/Users/rquai/Downloads/FAQ%20training%20providers%20-%20regi..%20(2).pdf)

⁶² Interview with WorkplaceNL, June 30th, 2017

⁶³ Interview with Work Safe BC, on June 30th, 2017

In BC, employers are responsible for providing worker instruction and training under section 115 of the Workers Compensation Act. The Occupational Health and Safety (OHS) Regulation also requires mandatory worker education, training, and/or certification in many cases.

Where specified in the Regulation, education, training, and certification must meet an acceptable training standard, or be provided by a person or agency acceptable to WorkSafeBC. Their certification services team reviews and accepts education, training, and/or certification where required by the Regulation, as well as agencies and persons conducting training and/or issuing certificates.

BC's regulations do not specify standards to be used in safety training requirements. The regulation however does specify that if standards are used, they should be adoptions of existing standards. In the last 5 years, a number of international standards have been used to inform training including standards from ANSI, ISO and CSA.

BC's Occupational Health and Safety Act makes reference to several standards to be used in complying with the regulations in addition to any standard adopted by "the Board". When the OHS Regulation references a specific edition of a standard, that edition must be followed unless there is a guideline accepting another edition as a standard acceptable to the Board under Section 4.4(2) (a) of the OHS Regulation. Referenced standards applicable to safety training includes:

- CSA B335-94, Industrial Lift Truck Operator Training
- EN 361:2002 Personal protective equipment against falls from a height — Full body harnesses

The regulations specify training be approved by WorkSafeBC for certain high-risk tasks such as crane operator, danger tree, diver, first aid, forklift and forestry. Unlike Newfoundland and Labrador and Ontario, BC has not developed its own safety training standards.⁶⁴

Within the Workers Compensation Act and the Occupational Health and Safety (OHS) Regulation, various clauses identify mandatory training. Specific training and certification must be conducted in accordance with an acceptable training standard or be provided by a person or agency acceptable to the Board. The actual words "accepted by" or "approved by" or "acceptable to" will appear along with "the Board" or "WorkSafeBC" in the section of the Regulation or Act related to the training and/or certification.

The following training and/or certification programs require approval or acceptance by WorkSafeBC:

Activity	Applicable section of the OHS Regulation
Occupational first aid attendant	OHSR 3.15
Crane operator	OHSR 14.34.1

⁶⁴ WorkSafeBC: <https://www.worksafebc.com/en/health-safety/education-training-certification/course-review>

Commercial diver	OHSR 24.12
Traffic control person	OHSR 18.4(1)
Persons working up to the adjusted limits of approach	OHSR 19.27
Persons conducting electrofishing	OHSR 19.41(a)
Blasters	OHSR 21.5 to OHSR 21.8
Fire fighter (forestry operations)	OHSR 26.3.1(1)
Danger tree risk assessor	OHSR 26.11(1)(b)
Faller	OHSR 26.21(1)(a) & OHSR 26.22

Only training and/or certification programs that require approval by the OHS Regulation are considered for program review.

In the submission of training programs for certification, WorkSafeBC requires programs to abide by best practices in adult education, quality assurance and quality control methods. The following elements are required for WorkSafeBC to conduct a program review:

- DACUM or job analysis chart
- Certification and/or training scheme
- Course outline
- Instructional materials
- Participant materials
- Test blueprint
- Assessment tools
- Media resources
- Quality assurance and quality control policies and procedures

Section 5: Interview and Survey Results

The following section describes the research team's results from its consultations. The consultations occurred over approximately 10 months between January and November of 2017. The consultations included a broad opinion survey and targeted interviews with stakeholders. The results are presented in three sections: 1. Survey results summarized from all respondents, 2. Survey results summarized by major stakeholder group and 3. Interview results summarized.

Survey Results

About the Respondents

An important premise of the research was to ensure broad-based input on the key questions posed in the survey. The research team tried to ensure representation across all stakeholder groups but in particular, from employer groups, which were identified as somewhat underrepresented by steering committee members and other observers. The research team was successful in ensuring participation from the largest single category group, that is, construction companies.

The survey was administered to approximately 375 targeted and invited industry contacts and received a total of 117 responses, an excellent response rate of slightly over 30%. Of the 117 respondents that participated in the survey, 78 completed the entire survey with the other 39 completing some but not all questions. Speculatively, the number of respondents not completing the survey may be attributed to: (1) survey length, and (2) survey respondents selecting or avoiding questions based on their perceived applicability to the respondent themselves.

In all, the survey received an excellent distribution of representation among respondents from the different stakeholder organizations involved in the commercial construction industry in Manitoba. For the purposes of generalizing points of view, this broad coverage was crucial. The percentage of respondents by stakeholder groups included:

- Unions (12%)
- Associations (3.5%)
- Private training providers (18%)
- Colleges and Private Vocational Institutes (14%)
- Construction companies (34%)
- Governmental agencies, Departments and crown corporations (6%)
- Non-profits and non-governmental agencies (8%) and others (2.5%).

A small number of responses were omitted from analysis because the respondents were not involved with the commercial construction industry.

The survey also received a good distribution of responses from stakeholders across Manitoba, although the majority were based in Winnipeg, despite efforts to collect opinions from outside the city.

Survey respondents also represented organizations of different sizes, with almost equal distribution between small enterprises and larger organizations. As well, more than 65% of respondents indicated they were owners, managers or safety officers, which suggests that, approximately two thirds of respondents were involved in safety and safety training directly in companies at the time of the survey. Additionally, 16% of respondents were instructors or trainers, adding to the overall input from stakeholders involved directly with safety training in workplaces.

Overall Responses of Interest

Overall responses of interest can be described in two ways: 1. Responses in which a virtual consensus or agreement existed across respondents and 2. Responses in which answers were varied suggesting less agreement, question confusion or inconsistent views held by respondents.

Overall Value of a Standards-based System to Manitoba

The most significant and unequivocal finding of the survey was an almost unanimous agreement in favour of the development of a standards-based safety training system in Manitoba for the commercial construction industry. Interestingly, that view was held by respondents who also considered themselves knowledgeable about standards-based training systems. In addition, a large proportion (more than 80%) of respondents also agreed that a standards-based system would be an improvement over the current approach, specifically in the following areas:

- consistency of safety training and curriculum
- clear definition of the requirements for safety training methods and curriculum
- consistency of training providers' qualifications

Tempering the positive responses regarding the effect of a standards-based system, respondents were also of the view that a standards-based system would not necessarily be an improvement over the current approach when considering:

- level of oversight
- cost-effectiveness
- reduction of workplace injuries.

Approximately one third of respondents also indicated they were unsure of the effects of implementing a standards-based system. By implication, respondents may be recognizing that simply replacing what is available currently with a new system that is not well devised or implemented would not necessarily improve the nature of safety training, but that the right system could improve safety training significantly.

Produce Safe Workers at Reasonable Cost

When asked, 53% of respondents were of the view that the current approach to safety training produces safe workers, while 21% felt the current approach did not produce safe workers. This response must be considered in light of the overwhelming support for this premise by the College, PVI and Private Training provider groups.

Views on the cost effectiveness of the current approach to safety training were mixed. Approximately one third of respondents did not think the current approach was cost-effective, one third were unsure and a further one third felt the approach was cost effective. Again, the respondents considering the current system cost effective consisted mainly of responses from the College, PVI and Private Training Providers' groups. At the same time the largest group of respondents considering the approach not cost effective was the construction companies themselves.

When considering the quality of safety training current workers receive, 35% of respondents disagreed or strongly disagreed with the premise that Manitoba workers receive high-quality safety training. As well, none of the respondents strongly agreed that certificates of completion currently issued for safety training are an accurate indicator of a worker's level of knowledge and competency. In fact, 78% of respondents indicated that certificates issued were not accurate indicators of worker competency. At the same time, approximately, 70% of respondents agreed that certificates issued by a standards-based safety training system would more accurately represent a worker's level of knowledge and competency.

When considering the degree to which the role of the trainer and the curriculum used during training is well-defined in the current approach, responses were split with approximately 43% of respondents feeling that the trainer role and curriculum were well-defined while 41% felt they were not. Similarly, respondents were quite evenly split in their perceptions of the current system's approach to safety training delivery methods with 43% indicating they felt delivery methods were not clearly defined and 40% indicating they felt these elements were clearly defined. Again, to some degree, these results were influenced by the College, PVI and Private training provider groups' inputs.

Challenges to Implementation

Regarding the potential challenges organizations would face if a standards-based safety training system were implemented in Manitoba the following elements were identified as significant or potential challenges for organizations:

- the cost to comply
- time to comply
- need for expertise
- availability of human resources

The time to comply was identified as the most significant challenge by the most respondents, with 76% agreeing that the amount of time provided to comply with any new requirements was important. At the same time, three-quarters of respondents also indicated that a standards-based safety training system would have a positive effect on their organization, with only 6% of respondents believing it would have a negative effect. The rest were unsure.

Regarding implementation, incentives to reduce costs associated with meeting new standards was identified by almost 95% as the most crucial input required to assist organizations in complying with a standards-based training system. In addition, respondents also overwhelmingly

supported the identification and creation of transitional supports to help stakeholders transition to a new system. The following items were selected as having high value during a transition:

- Prepared training content
- Third-party support to adjust current materials
- Third-party support to meet the requirements for trainer accreditation
- Incentives to reduce costs associated with meeting the standards
- Implementation support tools such as templates and checklists.

Regulation, Authority and Enforcement

A majority of respondents (68%) were of the view that a standards-based safety training system in Manitoba should be legislated. At the same time, 65% of respondents also indicated they would participate in a voluntary standards-based system, with an additional 22% saying they would participate under certain conditions.

If the system were legislated, more than 50% of respondents were of the view that the standards should be set in legislation, while less than half of respondents thought standards should be produced by an organization defined in legislation for the purpose of setting and maintaining standards.

When asked which organization in Manitoba currently would be best suited to take the lead in the development, maintenance, and management of a standards-based system in Manitoba, views were equally distributed between Workplace Safety and Health (27%), the Construction Safety Association of Manitoba (22%) and SAFE Work Manitoba (21%).

Most respondents (80%) considered enforcement an important component of an effective standards-based safety training system and were of the view that Workplace Safety and Health would be the most appropriate enforcement authority (54%). Other options included CSAM and Safe Work Manitoba. Of the organizations selected, respondents favoured using an existing organization rather than creating a new arms-length entity.

Funding

The largest group of respondents were of the view that government should take responsibility for 50% of the cost and that the costs should be shared in some way between government and industry. Generally, respondents indicated sensitivity to incurring new costs without seeing benefit.

Components for Standardization

Approximately three-quarters of respondents were of the view that standards should be developed to cover both curriculum (content and methods) and training providers. In considering topic areas for standards development, almost 70% of respondents thought that topics chosen should be based both on data from injuries and claims, and on industry and stakeholder preferences. Expectedly, almost all respondents (97%) thought general safety topics such as fall protection, working at heights, aerial work platforms and confined spaces should be standardized. Moreover, a majority of respondents also agreed that Musculoskeletal Injury

Prevention, Scaffolding, Lockout Tagout, and WHMIS should also be standardized. When asked to prioritize topic areas, 65% of respondents thought that Fall Protection/Working at Heights should be given priority for development. Additionally, 90% of respondents agreed that in the case of site-specific safety training, standards should be developed to cover individuals delivering the training as well as the training methods used. Likewise, approximately three-quarters of respondents were of the view that, both individual instructors and training organizations/companies should be required to meet a training provider standard.

Approximately 60% of respondents were of the view that a standards-based system in Manitoba should include a grandfathering provision that would apply to workers who have completed safety training before the implementation of the new system. Additionally, more than half of respondents thought workers should have to take refresher courses every two to five years.

For most respondents, a centralized, online tracking system to store and retrieve records of workers' completion of standardized safety training would be important to their organization.

Survey Results by Stakeholder Group

Unions

Respondents

In all, 14 union respondents participated in the survey, with 7 completing the entire survey. Of those completing the survey, most work in the Winnipeg area, with the remaining few distributed in Northern Manitoba or not working in Manitoba at all. Of the respondents, 23% identified as Senior Managers, 15% self-reported as owners and 15% selected *other*. One respondent each identified as Executive Director, Instructor, program coordinator, and Trainer.

Most respondents in the union category (70%) indicated they delivered safety training in some capacity with the other 30% indicating they were not involved in delivering safety training. All respondents indicated some knowledge of standards-based safety training systems with 33.33% of respondents indicating either that they were somewhat knowledgeable, knowledgeable or very knowledgeable.

Key Results

Of the responses, 100% of the respondents were in favour of a standards-based safety training system in Manitoba. Additionally, 100% of the respondents also stated that the standards-based safety training system should be legislated. When asked if they would participate in a voluntary system, 85.71% said they would.

When asked, almost 60% of respondents agreed that a standards-based safety training system would reduce workplace injuries. The other 40% either disagreed with the premise or were unsure.

Detailed Results

When asked how a standards-based system should be regulated, almost 60% of respondents said a system should be regulated by standards set in legislation, while approximately 40% said it should be regulated by a designated organization indicated in legislation that sets the standards. When asked which organization was most appropriate to have authority, almost 60% of respondents indicated Workplace Safety and Health would be best suited to be an “authority having jurisdiction” with other choices including Safe Work Manitoba and the Construction Safety Association of Manitoba (CSAM) making up the other 40% of respondents. None of the respondents selected the Workers Compensation Board as an option.

All respondents considered enforcement an important component of the standards-based safety training system, and again were of the view that Workplace Safety and Health would be the most appropriate enforcement authority, with almost 60% in agreement. Other choices included Safe Work Manitoba and CSAM.

When respondents were asked to consider their views of the current safety training approach in relation to various quality elements, the results were fairly consistent as follows:

- 50% indicated they felt the current approach was not cost effective while the other 50% indicated that they thought the current approach was cost effective or they weren't sure.
- 50% indicated that they felt the current approach produced safe workers while the other 50% felt the current approach did not produce safe workers or they were unsure.
- 50% agreed that the current system provided a well defined and predictable role for trainers, curriculum and training methods with the other 50% indicating that these elements were not well defined, or they were unsure.
- 50% of respondents felt the current system offered high-quality safety training to workers with the other 50% of respondents disagreeing or unsure of whether it did or did not produce safe workers.
- when asked about whether certificates of completion issued currently were an accurate indicator of a worker's level of knowledge and competency, 50% of respondents indicated they were unsure. Of the other 50% of respondents, 33% felt mildly or strongly that certificates did not present an accurate picture of a worker's knowledge and only 16% felt that certificates were a good indicator of a worker's knowledge and competency.

When respondents were asked to consider their views about the contribution a standards-based safety training system could make to improving safety training in Manitoba, responses were as follows:

- a large majority agreed that safety training, curriculum and methods would be more consistent and clearly defined than is the case currently.
- a large majority of respondents felt that a training provider standard would be valuable
- a large majority of respondents felt that certificates of completion would reflect a worker's skills and knowledge more effectively in a standards-based system
- On the other hand, respondents were unsure as to whether oversight, cost effectiveness, or reductions in workplace injuries would result from implementation of a standards-based system.

Regarding the potential challenges unions would face if a standards-based safety training system were implemented in Manitoba, the cost to comply stood out as the most significant potential challenge, with almost 60% indicating it would be either a significant or very significant challenge. Union respondents also suggested the time it would take to comply was an important consideration. On the other hand, the need for expertise and the availability of human resources were both seen as minimally significant challenges.

Regarding the benefits union organizations might experience from a standards-based safety training system, almost 60% agreed such an initiative would have a positive effect on their organizations with the other 40% expecting at least a moderately positive effect.

When commenting on aspects requiring standardization, the largest group of respondents indicated that both the curriculum and training providers should be subject to standardization. In addition:

- 100% of respondents agreed that general safety topics such as fall protection and confined spaces should be standardized.
- 100% agreed that site-specific safety training should be conducted by individuals meeting a training standard and that the training methods used should be standardized.
- 100% agreed that both the individual instructors and training organizations should be accredited to deliver training.
- 85% of respondents agreed that safety training topics chosen for standardization should be based on data from injuries and claims as well as industry preferences.

Regarding the potential safety topics for standardization, the following results were found:

- 100% agreed that fall protection/working at heights, aerial work platforms, WHMIS and scaffolding should be standardized. 85% felt that fall protection/working at heights should be given the highest priority
- 85% agreed that confined space and lockout/tagout should be standardized
- 60% agreed that musculoskeletal injury (MSI) prevention should be standardized at some point however 70% felt that doing so was a lower priority relative to the other topic areas such as working at heights

Almost 60% of respondents agreed that a standards-based safety training system should include a grandfathering provision that would apply to workers who have completed safety training before the implementation of the new standards-based system. The other 40% were opposed to a grandfathering provision. All respondents in the union category agreed that workers should have to take refresher courses between 2-5 years and 85% of union respondents indicated that having a centralized, online tracking system in Manitoba to store and retrieve records of workers' completion of standardized safety training was important to the success of the system.

When asked about useful resources to support unions in transitioning to a new system, 85% of respondents indicated that prepared training content would be helpful with third-party support to adjust current materials and third-party support to meet the requirements for trainer accreditation helpful but less so. Respondents also indicated that incentives to reduce costs associated with

meeting the standards and implementation support tools such as templates and checklists would be helpful but these supports were ranked lower than the other suggested support resources.

Private Training Providers (PTP)

Respondents

In all, 21 private training provider respondents participated in the survey, with 17 completing the entire survey. 70% of these respondents work in the Winnipeg area, with 5% working in Northern Manitoba, 15% in Southern Manitoba and the remaining 10% in other areas.

Respondent roles in their workplaces were as follows: 55% identified as Owners, 5% as Senior Managers, 10% as Instructors, 20% as Trainers, and the remaining 10% were unspecified.

Most respondents (90%) of the private training providers who responded delivered safety training in some capacity. All respondents indicated a knowledge of standards-based safety training systems with 35% of respondents indicating they felt they were somewhat knowledgeable, 23% were knowledgeable and 42% were very knowledgeable.

Key Results

Of the responses, 95% of the respondents were in favour of a standards-based safety training system in Manitoba. Almost 60% of the respondents also stated that the standards-based safety training system should be legislated with the remaining 40% indicating a voluntary system would work. When asked, almost 90% of respondents indicated they would participate in a voluntary system and the other 10% suggested they would under certain conditions.

Almost 60% of respondents agreed that a standards-based safety training system would reduce workplace injuries. The other 40% either disagreed with the premise or were unsure.

Detailed Results

When asked, approximately 50% of respondents said a new standards-based safety training system should be regulated by standards set in legislation, while the other 50% of respondents preferred the new system be regulated by an organization designated in legislation that sets the standards. Almost 30% of Private Training Provider respondents stated that either a new third-party organization created for this purpose or another organization would be best suited to have the authority in the development, maintenance, and management of a new standards-based system. A relatively small number of respondents (18%) felt that either Workplace Safety and Health or Safe Work Manitoba would be appropriate while none of the respondents thought the Workers Compensation Board would be an appropriate choice.

Almost 65% of respondents considered enforcement an important component of the standards-based safety training system and were of the view that Workplace Safety and Health would be the most appropriate enforcement authority, with 42% in agreement. Other than WSH, almost 30% of respondents indicated that a new third-party organization created for enforcement would be appropriate.

When respondents were asked to consider their views of the current safety training approach in relation to various quality elements, the results were as follows:

- This group was split as to its view of the current method's cost effectiveness. Forty percent indicated they thought the current approach was cost effective, 35% were unsure as to the cost effectiveness and 25% indicated they felt the current approach was not cost effective.
- 60% indicated that they felt the current approach produced safe workers while the other 40% felt the current approach did not produce safe workers (12%) or they were unsure (28%).
- Only 35% of respondents thought the training role, curriculum and training methods were well defined with 65% of respondents indicating that the training role was not well defined, or they were unsure.
- When considering the high-quality nature of the training, 42% of respondents were unsure if workers received high quality training, 35% felt that workers did not receive high quality training currently and only 23% of respondents felt workers were receiving high quality training under the current approach.
- When asked about whether certificates of completion issued currently were an accurate indicator of a worker's level of knowledge and competency, 65% felt certificates were not accurate indicators with a further 12% being unsure. Only 23% of respondents felt that certificates were accurate indicators of a worker's knowledge and skill currently.

When private training providers were asked to consider their views about the contribution a standards-based safety training system could make to improving safety training in Manitoba, responses were as follows:

- a majority (70%) agreed that safety training, curriculum and methods would be more consistent and clearly defined than is the case currently.
- a majority of respondents (65%) felt that a training provider standard would be valuable
- a majority of respondents (65%) felt that certificates of completion would reflect a worker's skills and knowledge more effectively in a standards-based system
- a majority of respondents (almost 60%) agreed there would be a greater level of oversight and that reductions in workplace injuries could be expected. However, when considering cost effectiveness, the majority were unsure if a new standardized system would be more cost effective than current methods.

Regarding the potential challenges private training providers would face if a standards-based safety training system were implemented in Manitoba:

- the largest single challenge identified was time to comply with approximately 60% of respondents selecting that option.
- almost 30% rated the cost to comply and availability of human resources as challenges with the need for expertise seen as less of a concern.

Regarding the benefits private training providers might experience from a standards-based safety training system, almost 70% agreed such an initiative would have either a very positive or moderately positive effect with 25% feeling the effect would be negligible and only 5% indicating they thought a standards-based safety training system would have a negative effect on their organization.

When commenting on aspects requiring standardization, 65% of respondents indicated that both the curriculum and training providers should be subject to standardization. In addition:

- 94% of respondents agreed that general safety topics such as fall protection and confined spaces should be standardized.
- 88% also agreed that site-specific safety training should be conducted by individuals meeting a trainer standard and that the training methods used should be standardized.
- 70% of respondents agreed that both individual instructors and training organizations should be accredited to deliver training.
- 58% of respondents agreed that safety training topics chosen for standardization should be based on data from injuries and claims as well as industry preferences.

Regarding the potential safety topics for standardization, the following results were found:

- 100% agreed that fall protection/working at heights was an important topic for standardization, with almost 70% indicating this should be the priority
- 94% felt confined space and aerial work platforms should be standardized
- 82% indicated lockout/tagout, scaffolding and WHIMS should be standardized.
- 53% agreed that musculoskeletal injury (MSI) prevention should be standardized at some point however 80% felt that doing so was a lower priority relative to the other topic areas such as working at heights

Almost 65% of respondents agreed that a standards-based safety training system should include a grandfathering provision that would apply to workers who have completed safety training before the implementation of the new standards-based system. The other 35% were opposed to a grandfathering provision. Fifty three percent of respondents agreed that workers should have to take refresher courses between 2-5 years and 41% of respondents indicated that having a centralized, online tracking system in Manitoba to store and retrieve records of workers' completion of standardized safety training was important to the success of the system.

When asked about useful resources to support private training providers in transitioning to a new system, half of respondents indicated that prepared training content would be helpful and 40% indicated third-party support to adjust current materials and third-party support to meet the requirements for trainer accreditation would be helpful. However, 77% of respondents indicated that incentives to reduce costs associated with meeting the standards and implementation support tools such as templates and checklists would be helpful. Only 5% of respondents thought none of the resources would be helpful.

Construction Companies

In all, 40 construction companies participated in the survey, with 25 completing the entire survey. Of the respondents, 68% work in the Winnipeg area, with 5% working in Western Manitoba, 22% in Southern Manitoba and the remaining 2% were unspecified. Respondent roles in their organizations included: 37% Safety Officers 25% Owners, 14% Senior Managers, 2%

Executive Directors, 2% Supervisors and 2% as construction managers. Fourteen percent remained unspecified.

Most respondents in the construction company category (70%) indicated they delivered safety training in some capacity with the other 30% indicating they were not involved in delivering safety training. All respondents indicated some knowledge of standards-based safety training systems with 48% of respondents indicating either that they were somewhat knowledgeable, 36% were knowledgeable and 16% were very knowledgeable.

Key Findings

Of the responses, 87.5% of the respondents were in favour of a standards-based safety training system in Manitoba. A full 60% of the respondents also stated that the standards-based safety training system should be legislated with the remaining 40% indicating a voluntary system would work. When asked, only 56% of respondents indicated they would participate in a voluntary system with another 32% indicating they would under certain conditions. Only 12% indicated they would not participate in a voluntary system.

Almost 60% of respondents agreed that a standards-based safety training system would reduce workplace injuries. The other 40% either disagreed with the premise or were unsure.

Detailed Findings

When asked, approximately almost 60% of respondents said a new standards-based safety training system should be regulated by standards set in legislation, while the other 40% of respondents preferred the new system be regulated by an organization designated in legislation that sets the standards. Forty four percent of the companies asked indicated that the Construction Safety Association of Manitoba (CSAM) would be best suited to have the authority in the development, maintenance, and management of a new standards-based system with 20% indicating Safe Work Manitoba and 24% indicating Workplace Safety and Health. When considering enforcement, 76% of respondents thought enforcement was important and were also of the view that Workplace Safety and Health would be appropriate to enforce the system.

When respondents were asked to consider their views of the current safety training approach in relation to various quality elements, the results were as follows:

- 40% indicated they thought the current approach was cost effective, 20% were unsure as to the cost effectiveness and 40% indicated they felt the current approach was not cost effective.
- 50% indicated that they felt the current approach produced safe workers while 32% weren't sure. The other 16% felt the current approach did not produce safe workers
- 44% of respondents thought the training role, curriculum and training methods were well defined with 35.5% of respondents indicating that the training role and curriculum was not well defined, with 24% unsure.
- When considering the high-quality nature of the training, only 32% of respondents felt workers received high quality training, 28% felt that workers did not receive high quality training currently and almost 40% of respondents were unsure.

- When asked about whether certificates of completion issued currently were an accurate indicator of a worker's level of knowledge and competency, 60% felt certificates were not accurate indicators with 24% unsure and only 25% indicating they felt that certificates were accurate indicators of a worker's knowledge and skill currently.

When construction companies were asked to consider their views about the contribution a standards-based safety training system could make to improving safety training in Manitoba, responses were as follows:

- a majority (72%) agreed that safety training, curriculum and methods would be more consistent and clearly defined than is the case currently.
- a majority of respondents (64%) felt that a training provider standard would be valuable
- a majority of respondents (60%) felt that certificates of completion would reflect a worker's skills and knowledge more effectively in a standards-based system.
- half of respondents agreed there would be a greater level of oversight, however, only 28% felt that a standards-based system would result in reduced workplace injuries with the majority (68%) unsure.
- Only 28% of respondents felt a standards-based safety training system would be more cost effective with 20% indicating they felt it wouldn't be more cost effective. The majority were unsure.

Regarding the potential challenges companies would face if a standards-based safety training system were implemented in Manitoba, there was no single challenge appearing most often:

- The need for expertise was identified by the largest number of respondents as being a very significant challenge.
- Each of the options (cost to comply, time to comply, need for expertise and need for human resources) were identified as either moderately significant, significant or very significant in more than 60% of responses.

Regarding the benefits companies might experience from a standards-based safety training system, approximately 60% agreed such an initiative would have either a very positive or moderately positive effect. Almost 30% felt the effect would be negligible and only 8% indicated they thought a standards-based safety training system would have a negative effect on their organization.

When commenting on what elements of the system should be standardized, 76% of respondents indicated that both curriculum and training providers should be subject to standardization. In addition:

- 100% of respondents agreed that general safety topics such as fall protection and confined spaces should be standardized.
- 88% also agreed that site-specific safety training should be conducted by individuals meeting a trainer standard and that the training methods used should be standardized.
- 68% of respondents agreed that both individual instructors and training organizations should be accredited to deliver training.

- 68% of respondents agreed that safety training topics chosen for standardization should be based on data from injuries and claims as well as industry preferences with only 20% of that group indicating injury data alone.

Regarding the potential safety topics for standardization, the following results were found:

- 96% agreed that fall protection/working at heights should be standardized, with almost 75% indicating this should be the priority
- 95% felt confined space and aerial work platforms should be standardized
- 75% indicated lockout/tagout and WHMIS with 87.5% considering scaffolding as important to be standardized although priorities for these areas were lower than those for working at heights, confined spaces and aerial work platforms
- 45% agreed that musculoskeletal injury (MSI) prevention should be standardized at some point however 60% felt that doing so was a lower priority relative to the other topic areas such as working at heights

Almost 80% of company respondents agreed that a standards-based safety training system should include a grandfathering provision that would apply to workers who have completed safety training before the implementation of the new standards-based system. The other 20% were opposed to a grandfathering provision. Fifty four percent of respondents agreed that workers should have to take refresher courses between 2-5 years and 50% of respondents indicated that having a centralized, online tracking system in Manitoba to store and retrieve records of workers' completion of standardized safety training was crucial to the success of the system.

When asked about useful resources to support companies during transition to a new system, 91% of respondents stated the provision of prepared training content would be helpful and 75% indicated third-party support to adjust current materials and third-party support to meet the requirements for trainer accreditation (83%) as helpful. Fully 88% of respondents indicated that incentives to reduce costs associated with meeting the standards and implementation support tools such as templates and checklists would be helpful (91%).

College and Private Vocational Institutes (PVI)

In all, 16 College and Private Vocational Institute (PVI) respondents participated in the survey, with 13 completing the entire survey. Of the respondents, 62% work in the Winnipeg area, with 12.5% working in Western Manitoba, 6.25% in Southern Manitoba and the remaining 18.75% in Western Manitoba. Respondent roles in their organizations included: 56.25% identifying as Instructors, 25% as Senior Managers, 12% as program coordinators, and 6.25 remained unspecified.

Most respondents in the College/PVI category (87%) indicated they delivered safety training in some capacity with the other 13% indicating they were not involved in delivering safety training. All respondents indicated some knowledge of standards-based safety training systems with 38% of respondents indicating that they were somewhat knowledgeable, 54% were knowledgeable and 8% were very knowledgeable.

Key Results

Of the responses, 85% were in favour of a standards-based safety training system in Manitoba. Almost 60% of the respondents also stated that the standards-based safety training system should be legislated with the remaining 40% indicating a voluntary system would work. When asked, only 50% of respondents indicated they would participate in a voluntary system whereas 42% indicated they would not participate in a voluntary system and only 8% suggested they would do so under certain conditions.

Detailed Results

When asked, approximately almost 60% of respondents said a new standards-based safety training system should be regulated by standards set in legislation, while the other 40% of respondents preferred the new system be regulated by an organization designated in legislation that sets the standards. Thirty percent of College/PVI respondents indicated that Safe Work Manitoba would be best suited to have the authority in the development, maintenance, and management of a new standards-based system with 15% indicating CSAM and 23% indicating Workplace Safety and Health. When considering enforcement, 92% of respondents thought enforcement was important and 46% were of the view that Workplace Safety and Health would be appropriate to enforce the system. Almost 24% of respondents indicated a new third-party organization could be created for the purpose of enforcement.

When respondents were asked to consider their views of the current safety training approach in relation to various quality elements, the results were as follows:

- 46% indicated they thought the current approach was cost effective, 23% were unsure as to the cost effectiveness and 31% indicated they felt the current approach was not cost effective.
- 70% indicated that they felt the current approach produced safe workers while only 7% weren't sure. The other 23% felt the current approach did not produce safe workers.
- 70% of respondents thought the training role, curriculum and training methods in the current approach were well defined with 23% of respondents indicating that the training role, curriculum and methods were not well defined, and 7% were unsure.
- When considering the high-quality nature of current training, almost 62% of respondents felt workers received high quality training, 23% felt that workers did not receive high quality training currently and the other 15% of respondents were unsure.
- When asked about whether certificates of completion issued currently were an accurate indicator of a worker's level of knowledge and competency, 70% felt certificates were accurate indicators while 30% indicated they felt that certificates were not accurate indicators of a worker's knowledge and skill currently.

When Colleges/PVIs were asked to consider their views about the contribution a standards-based safety training system could make to improving safety training in Manitoba, responses were as follows:

- a majority (70-77%) agreed that safety training, curriculum and methods would be more consistent and clearly defined than is the case currently.
- a majority of respondents (61%) felt that a training provider standard would be valuable

- a majority of respondents (61%) felt that certificates of completion would reflect a worker's skills and knowledge more effectively in a standards-based system.
- while 38% of respondents agreed there would be a greater level of oversight, 54% were unsure.
- while 38% felt that a standards-based system would result in reduced workplace injuries 46% were unsure of the result.
- 54% of respondents felt a standards-based safety training system would be more cost effective with 20% indicating they felt it wouldn't be more cost effective. Almost 40% in this category were unsure.

Regarding the potential challenges College and Private Vocational Institutes (PVI) would face if a standards-based safety training system were implemented in Manitoba, responses were as follows:

- 70% rated the time to comply as a significant challenge
- 54% rated the need for expertise as a significant challenge
- 51% rated the availability of human resources as a significant challenge
- 30% rated the cost to comply as a significant challenge

Regarding the benefits companies might experience from a standards-based safety training system, approximately 76% agreed such an initiative would have either a very positive or moderately positive effect on their organization. Only 8% felt the effect would be negligible and only 15% indicated they thought a standards-based safety training system would have a negative effect on their organization.

When commenting on aspects requiring standardization, 85% of respondents indicated that both the curriculum and training providers should be subject to standardization although interestingly, when asked separately, only 15% of respondents indicated curriculum should be standardized. In addition:

- 100% of respondents agreed that general safety topics such as fall protection and confined spaces should be standardized.
- 93% also agreed that site-specific safety training should be conducted by individuals meeting a trainer standard and that the training methods used should be standardized.
- 77% of respondents agreed that both individual instructors and training organizations should be accredited to deliver training.
- 75% of respondents agreed that safety training topics chosen for standardization should be based on data from injuries and claims as well as industry preferences.

Regarding the potential safety topics for standardization, the following results were found:

- 100% agreed that fall protection/working at heights along with lockout/tag out should be standardized, with almost 34% indicating this should be the priority
- 91% felt confined space, aerial work platforms and scaffolding should be standardized although 72% felt aerial work platforms should be a low priority while 20% felt confined spaces should be a high priority

- 100% indicated WHMIS as important to be standardized although priorities for these areas were lower than those for working at heights, confined spaces and aerial work platforms
- 83% agreed that musculoskeletal injury (MSI) prevention should be standardized at some point however 60% felt that doing so was a lower priority relative to the other topic areas such as working at heights

Only 40% of College/PVI respondents agreed that a standards-based safety training system should include a grandfathering provision that would apply to workers who have completed safety training before the implementation of the new standards-based system. Almost 60% felt there should not be a grandfathering provision. Almost 42% of respondents agreed that workers should have to take refresher courses between 2-5 years with 33% indicating refreshers should happen after 5 years. College and PVI respondents indicated that having a centralized, online tracking system in Manitoba to store and retrieve records of workers' completion of standardized safety training was important to the success of the system (67%).

When asked about useful resources to support companies during transition to a new system, 100% of respondents stated the provision of prepared training content would be helpful and 83% indicated third-party support to adjust current materials was important. Regarding third-party support to meet the requirements for trainer accreditation, 92% of respondents indicated this dimension would be helpful. Fully 91% of respondents indicated that incentives to reduce costs associated with meeting the standards and implementation support tools such as templates and checklists would be helpful.

Government Departments and Crown Corporations

Respondents

In all, 7 respondents identified as being from government or crown corporations with all 7 completing the entire survey. Of the respondents, 71% work in the Winnipeg area, with 29% from other areas in Manitoba. Respondent roles in their organizations included: 29% Senior Managers, 57% safety officers and the remaining 14% program coordinators.

Almost 60% of respondents in the Government/Crown Corporation category indicated they delivered safety training in some capacity with the other 40% indicating they were not involved in delivering safety training. All respondents indicated some knowledge of standards-based safety training systems with 43% of respondents indicating that they were somewhat knowledgeable, 14% were knowledgeable and 43% were very knowledgeable.

Key Findings

Of the responses, 100% of the respondents were in favour of a standards-based safety training system in Manitoba. As well, 85% of the respondents also stated that the standards-based safety training system should be legislated with the other 15% indicating a voluntary system would work. When asked, 85% of respondents indicated they would participate in a voluntary system with an addition 14% indicating they would do so under certain conditions.

Detailed Findings

When asked, approximately almost 60% of respondents said a new standards-based safety training system should be regulated by standards set in legislation, while the other 40% of respondents preferred the new system be regulated by an organization designated in legislation that sets the standards. Forty two percent of Government/Crown Corporation respondents indicated that Workplace Safety and Health would be best suited to have the authority in the development, maintenance, and management of a new standards-based system with other choices including Work Safe Manitoba. None of this response group chose Workers Compensation Board as a possible organization to operate a standards-based safety training system.

When considering enforcement, 85% of respondents thought enforcement was important and 72% were of the view that Workplace Safety and Health would be appropriate to enforce the system. Almost 15% of respondents indicated a new third-party organization could be created for the purpose of enforcement.

When respondents were asked to consider their views of the current safety training approach in relation to various quality elements, the results were as follows:

- 43% indicated they thought the current approach was not cost effective, 57% were unsure as to the cost effectiveness.
- 28.5% indicated that they felt the current approach produced safe workers while 28.5% weren't sure. The other 43% felt the current approach did not produce safe workers.
- 28.5% of respondents thought the training role, curriculum and training methods in the current approach were well defined with 43% of respondents indicating that the training role, curriculum and methods were not well defined, and 28.5% unsure.
- When considering the high-quality nature of current training, only 14% of respondents felt workers received high quality training, while almost 60% felt that workers did not receive high quality training currently and the other 26% of respondents were unsure.
- When asked about whether certificates of completion issued currently were an accurate indicator of a worker's level of knowledge and competency, only 14% felt certificates were accurate indicators while the majority (70%) indicated they felt that certificates were not accurate indicators of a worker's knowledge and skill currently.

When Government/Crown Corporation respondents were asked to consider their views about the contribution a standards-based safety training system could make to improving safety training in Manitoba, responses were as follows:

- 100% agreed that safety training, curriculum and methods would be more consistent and clearly defined than is the case currently.
- 100% of respondents felt that a training provider standard would be valuable.
- 85% felt that certificates of completion would reflect a worker's skills and knowledge more effectively in a standards-based system.
- 85% of respondents felt there would be a greater level of oversight \.
- 71% felt that a standards-based system would result in reduced workplace injuries with 29% indicating they were unsure of the potential result.

- While almost 30% of respondents felt a standards-based safety training system would be more cost effective almost 60% felt it wouldn't be more cost effective and almost 30% in this category were unsure.

Regarding the potential challenges Government/Crown Corporation respondents would face if a standards-based safety training system were implemented in Manitoba, responses were as follows:

- 58% rated the need for expertise as a significant challenge
- 58% rated the availability of human resources as a significant challenge
- 43% rated the time to comply as a significant challenge
- 43% rated the cost to comply as a significant challenge

Regarding the benefits government and crown corporation respondents might experience from a standards-based safety training system, almost 80% indicated they anticipated either a very positive or moderately positive effect. Only 8% felt the effect would be negligible and only 15% indicated they thought a standards-based safety training system would have a negative effect on their organization.

When commenting on aspects requiring standardization, 85% of respondents indicated that both the curriculum and training providers should be subject to standardization although interestingly, when asked separately, only 15% of respondents indicated curriculum should be standardized. In addition:

- 100% of respondents agreed that general safety topics such as fall protection and confined spaces should be standardized.
- 86% also agreed that site-specific safety training should be conducted by individuals meeting a trainer standard and that the training methods used should be standardized.
- 86% of respondents agreed that both individual instructors and training organizations should be accredited to deliver training.
- 72% of respondents agreed that safety training topics chosen for standardization should be based on data from injuries and claims as well as industry preferences.

Regarding the potential safety topics for standardization, the following results were found:

- 100% agreed that fall protection/working at heights, aerial work platforms and scaffolding should be standardized, with 50% indicating working at heights should be the priority
- 86% felt confined space and lockout/tagout should be standardized although lockout/tagout was mentioned as a relatively low priority
- 100% indicated WHMIS as important to be standardized
- 86% agreed that musculoskeletal injury (MSI) prevention should be standardized

The majority of respondents in this category (86% indicated that a standards-based safety training system should include a grandfathering provision that would apply to workers who have

completed safety training before the implementation of the new standards-based system. Only 29% of respondents agreed that workers should have to take refresher courses between 2-5 years whereas 43% felt a refresher should be required every 2 years. Government/Crown Corporation respondents indicated that having a centralized, online tracking system in Manitoba to store and retrieve records of workers' completion of standardized safety training was important to the success of the system (72%).

When asked about useful resources to support companies during transition to a new system, 86% of respondents stated the provision of prepared training content would be helpful and 58% indicated third-party support to adjust current materials was important. Regarding third-party support to meet the requirements for trainer accreditation, 86% of respondents indicated this dimension would be helpful. Only 57% of respondents indicated that incentives to reduce costs associated with meeting the standards was important whereas 86% felt implementation support tools such as templates and checklists would be helpful.

Non-Profit

Respondents

In all, 9 respondents identified as being from non-profit organizations with 5 completing the entire survey. Of the respondents, 80% work in the Winnipeg area, with 10% from other areas in Manitoba and 10% unspecified. Respondent roles in their organizations included: 20% Executive Director, 20% Senior Manager, 20% safety officer and 40% unspecified.

Almost 60% of respondents in the non-profit group indicated they delivered safety training in some capacity with the other 40% indicating they were not involved in delivering safety training. All respondents indicated some knowledge of standards-based safety training systems with 60% of respondents indicating that they were somewhat knowledgeable, 20% indicating they were knowledgeable and 20% indicating they were very knowledgeable.

Key Findings

Of the responses, 80% of the respondents were in favour of a standards-based safety training system in Manitoba. As well, 80% of the respondents also stated that the standards-based safety training system should be legislated with the other 20% indicating a voluntary system would work. When asked, 40% of respondents indicated they would participate in a voluntary system with an additional 40% indicating they would do so under certain conditions.

Detailed Findings

When asked, approximately 40% of respondents said a new standards-based safety training system should be regulated by standards set in legislation, while 60% of respondents preferred the new system be regulated by an organization designated in legislation that sets the standards. Sixty percent of respondents indicated that either a new third-party organization created for the purpose or another organization would be best suited to have the authority in the development, maintenance, and management of a new standards-based system. The largest single choice other than a new separate entity was Safe Work Manitoba. None of this response group chose Workers Compensation Board as a possible organization to operate a standards-based safety training system.

When considering enforcement, 80% of respondents thought enforcement was important and 40% were of the view that Workplace Safety and Health would be appropriate to enforce the system. Aside from WSH, Safe Work Manitoba and CSAM were chosen in 20% of responses.

When respondents were asked to consider their views of the current safety training approach in relation to various quality elements, the results were as follows:

- 40% indicated they thought the current approach was cost effective with another 40% indicating they thought the current approach was not cost effective. The remaining 20% were unsure as to the cost effectiveness.
- 40% indicated that they felt the current approach produced safe workers while another 40% felt it didn't. The remaining 20% weren't sure.
- 40% of respondents thought the training role, curriculum and training methods in the current approach were well defined with 60% of respondents indicating the opposite.
- When considering the high-quality nature of current training, 40% of respondents felt workers received high quality training, while 40% felt that workers did not receive high quality training currently. The other 20% of respondents were unsure.
- When asked about whether certificates of completion issued currently were an accurate indicator of a worker's level of knowledge and competency, 100% felt certificates were not accurate indicators of a worker's knowledge and skill currently.

When non-profit organizations were asked to consider their views about the contribution a standards-based safety training system could make to improving safety training in Manitoba, responses were as follows:

- 80% agreed that safety training, curriculum and methods would be more consistent and clearly defined than is the case currently.
- 80% felt that a training provider standard would be valuable.
- a majority of respondents (60%) felt that certificates of completion would reflect a worker's skills and knowledge more effectively in a standards-based system.
- only 20% of respondents felt there would be a greater level of oversight, 20% were unsure but 60% felt there would not be a greater level of oversight.
- 60% felt that a standards-based system would result in reduced workplace injuries while 20% were unsure of the result and the other 20% felt a standards-based safety training system would not reduce workplace injuries.
- 20% of respondents felt a standards-based safety training system would be more cost effective with 20% indicating they thought it wouldn't be more cost effective and the majority (60%) indicating they were unsure as to the cost effectiveness.

Regarding the potential challenges respondents from the non-profit sector would face if a standards-based safety training system were implemented in Manitoba, responses were as follows:

- 80% rated the need for expertise as a moderate or very significant challenge.
- 80% rated the availability of human resources as a moderate or very significant challenge.

- 60% rated the time to comply as a significant challenge.
- 40% rated the cost to comply as a significant challenge.

Regarding the benefits non-profit organization respondents might experience from a standards-based safety training system, 60% indicated they anticipated either a very positive or moderately positive effect. The other 40% indicated they thought the initiative would have no effect on their organization.

When commenting on aspects requiring standardization, 80% of respondents indicated that both the curriculum and training providers should be subject to standardization although interestingly, when asked separately, only 20% of respondents indicated curriculum should be standardized. In addition:

- 80% of respondents agreed that general safety topics such as fall protection and confined spaces should be standardized.
- 80% also agreed that site-specific safety training should be conducted by individuals meeting a trainer standard and that the training methods used should be standardized.
- 60% of respondents agreed that both individual instructors and training organizations should be accredited to deliver training.
- 60% of respondents agreed that safety training topics chosen for standardization should be based on data from injuries and claims as well as industry preferences.

Regarding the potential safety topics for standardization, the following results were found:

- 80% agreed that fall protection/working at heights, aerial work platforms and scaffolding should be standardized, with 40% indicating that fall protection/working at heights should be the priority.
- 80% felt confined space and lockout/tagout should be standardized.
- 80% indicated WHMIS as important to be standardized although 80% also felt it was the lowest priority.
- 90% agreed that musculoskeletal injury (MSI) prevention should be standardized.

The majority of respondents in this category (80%) indicated that a standards-based safety training system should include a grandfathering provision that would apply to workers who have completed safety training before the implementation of the new standards-based system. Of those that responded, 20% felt that workers should have to take refresher courses between 2-5 years whereas 20% felt a refresher should be required every 2 years. Only 20% of non-profit organization respondents indicated that having a centralized, online tracking system in Manitoba to store and retrieve records of workers' completion of standardized safety training was important to the success of the system (60% considered it minimally important).

When asked about useful resources to support companies during transition to a new system, 80% of respondents stated the provision of prepared training content would be helpful and 60% indicated third-party support to adjust current materials and to support trainer accreditation was important. Sixty percent of respondents indicated that incentives to reduce costs associated with

meeting the standards was important while 60% felt implementation support tools such as templates and checklists would be helpful.

Associations

In all, 4 survey participants identified themselves as being from an association, however of those 4 respondents only 1 completed the full survey. The relatively low number of responses could be because some respondents from associations may have identified as being part of the non-profit stakeholder group or some other respondent group. Since only 1 association respondent answered the survey completely, their results have not been included here.

Summary of Interviews

Over a 5-month period, the research team conducted in-depth interviews with approximately 50 individuals from 30 organizations in Manitoba, Ontario, Newfoundland and Labrador and British Columbia. In some cases, the research team interviewed more than one person on more than one occasion. The goals of this section of the research were to:

1. gather stakeholder opinions on standardizing safety training in the commercial construction industry in Manitoba.
2. collect more information about stakeholder safety training offered or received than could be gleaned from stakeholders' websites and other published materials.
3. Explore systems in other provinces.

Interview Approach

The interview process was organized to be flexible. Interviews were conducted focusing on predefined goals however, the interviews themselves were not formally structured beyond five broadly stated goals including:

1. Determine the knowledge and experience of respondents with standards-based systems
2. Understand the perceptions of standards-based safety training systems held by the industry and the benefits and challenges the industry sees.
3. Collect opinions regarding the importance or lack of importance of typical standards-based system components.
4. Determine opinions regarding costs and funding.
5. Explore priority subject matter areas for a standards-based safety training system.

Comments received from interviewees were then compiled to reflect their applicability to one of or several of the goals described above. The purpose of taking this approach was to maintain anonymity for interview participants. The research team felt that maintaining anonymity among interviewees would encourage candid comments and unfiltered opinions. Specific individual results or comments appearing below are composite results.

In no particular order, the participating Manitoba organizations agreeing to interviews included:

- Safety Services Manitoba
- UA Plumbers & Pipefitters 254

- Manitoba Institute of Trades and Technology
- Manitoba Hydro
- Construction Safety Association of Manitoba (CSAM)
- Manitoba Construction Sector Council
- Safe Work Manitoba
- International Brotherhood of Electrical Workers
- Northern Manitoba Sector Council
- Red River College
- Apprenticeship Manitoba
- Manitoba Education
- FWS Group of Companies
- Wescan Electrical Mechanical Services
- Operating Engineers Training Institute of Manitoba (OETIM)
- Technical Vocational High School
- Bockstael Construction
- Elite Safety Services
- Qualico
- Biz Training Solutions (provider of the Safety Net)
- Hazmasters
- Alberta Construction Safety Association
- Gypsum Drywall Interiors (GDI)
- Parkwest Projects
- Merit Contractors Association
- Construction Labour Relations Association of Manitoba

In addition to the work in Manitoba, the team also conducted extensive interviews with key representatives from the safety training systems in Ontario, Newfoundland/Labrador and British Columbia including one or more representatives from each of the following organizations:

- Newfoundland and Labrador Construction Safety Association
- WorkplaceNL
- Bluedrop (vendor provider of NL's central tracking system)
- Ontario Building Trades
- Ontario Ministry of Labour
- Work Safe BC
- BC Building Trades (written comments)

The information shared from other jurisdictions was particularly helpful in the research team's thinking during development of the model schematics displayed earlier in the report. The people with whom the research team spoke provided many insights into the origins of standardized safety training in their provinces, lessons learned, and recommendations for implementing a new system.

Goal 1

When asked, interviewees, to a person, expressed some or a great deal of knowledge and experience with standards and standards-based system. In asking about specifics of such systems though, it became apparent that the knowledge of safety training standards was of a general nature with few having hands-on experience with standards-based safety training system development. Most were aware of standards and how they operate however fewer were aware of the ways in which standards systems operate.

It is not surprising then that all respondents expressed the need for a standards-based safety training system in Manitoba while also expressing a level of uncertainty as to how such a system would work. Respondents from larger organizations with existing systems and methods either in the production or consumption of safety training were justifiably concerned as to the effects of implementation on their current and future state. Deliverers of training were also both supportive of the idea and justifiably wary as to the effects of implementing such a system.

Goals 2 and 3

Goals 2 and 3 focused the interviews on industry perceptions of standards-based safety training systems and opinions they had as to the benefits and challenges of implementing a system and the positives and negatives of potential system elements. The overriding opinion shared by all stakeholders was that “there is a need for standardized training in the province”.

Two key concern were expressed consistently. First, respondents warned that the standards developed needed to be achievable for companies and workers. Second, respondents urged that the system implementation be done with those who had to make the transition in mind, namely, that a new system would have reasonable costs and would be implemented in a timeline that considered the challenges some organizations might face in making the transition. Respondents indicated that unreasonable expectations or costs would have an impact on the participation of the industry if the system were voluntary.

Stakeholders likewise expressed opinions regarding enforcement and the role of regulation and legislation. Stakeholders supported the need for legislation perhaps because of the importance they placed on the system in Manitoba but also because they felt legislation was the best way to ensure a system that was fair and reliable for industry participants.

Stakeholders also agreed that one organization should take on the role of lead organization. Stakeholders suggested organizations such as SAFE Work or CSAM would be best suited to develop the standards and accredit training providers but also tended to support Workplace Safety and Health as the enforcement organization.

Other opinions related to the current and future safety training environment included the following:

- The format of training in a new system needs to be accessible but also reliable. Methods such as online and multi-media formats for knowledge requirements, blended with classroom, hands on or practical training in a face to face setting were seen as valuable.

The online format should not replace classroom offerings though and a periodic requirement to redo training and recertify was seen as important.

- While a training program standard was seen as important, a training provider standard was seen as perhaps more important, as long as the provider standard ensures the provider has the knowledge and experience required to develop and deliver high-quality curriculum. In addition, stakeholders mentioned a standard for supervisors or others delivering workplace training or overseeing workers on the job.
- Beyond core safety training topics, the system should consider add-on components that are trade-specific (e.g. specific training for plumbers) to include safe job procedures, legislation and critical work tasks.
- Stakeholders indicated the importance of having a certificate that more reliably represented the skills and knowledge of the certificate holder, whether that certificate was a certificate of completion or a certificate of competency. In addition, the new system should consider incorporating site or trade specific training add-ons reflecting site and job specific safety requirements into either a certificate of completion or of competency.
- Even though current legislation in Manitoba requires employers to provide safety training to workers, it does not specify the approach or quality of the training required. This lack of specificity means that training received by workers can vary widely. Two workers completing the same (in name) safety courses and holding the same certificates of completion could have vastly different safety skills and knowledge on the job.
- Stakeholder consultation in developing standards is key to a successful system, especially if the system is voluntary.
- To ensure the fairness of the system for stakeholders, a defined and maintained accreditation process for the course, the provider and/or the instructor would help to ensure training is being delivered as described and that the standard is met by more than just a committed few who use the standard.
- To increase the efficiency and effectiveness of the system, a central database tracking trainee certifications and trainer accreditations would be very important. Respondents also offered the concept of an ID card or similar for trainees that links to the central database and allows an employer to review training records quickly. In addition, some felt a central system could also track a “time on the job” criterion for establishing certificates and recertification.
- Stakeholders also indicated the importance of considering harmonizing any new system with existing systems in Ontario and Newfoundland/Labrador.

Goal 4

In discussing the potential costs associated with implementing such a system in Manitoba, most stakeholders stressed the following:

- Any new system must consider the needs small businesses will have during implementation. There was concern expressed that small businesses may be hampered by a lack of resources (financial and human) to meet the standards. To that end, interviewees mentioned supports such as available training materials, cost incentives and access to support human resources.

- Any new system should incent employers through cost-recovery style initiatives such as WCB premium discounts, pre-determined cost rebates in development and low or no-cost supports such as human resources or access to central tracking system.
- Any new system could include programs to incent workers to keep their certifications up to date, at least initially, until the system become widely adopted.
- Although the use of incentives was considered a positive step, most respondents also indicated that they felt a standards-based safety training system would save them money in the longer term both in reduced WCB premiums as injury rates went down and in reduced training costs.

Goal 5

In considering priority content areas, the majority of stakeholders supported the idea that priority areas for standardization should be driven by injury, illnesses and exposure rates in Manitoba. Standardization should be targeted first to high risk areas, which would have the biggest impact in the shortest time.

Interviewees pointed to the need to incorporate site-specific training as it pertains to topics such as material handling, cranes, lifting, rigging, working at heights and fall protection but pointed out that job or site-specific training would be difficult to standardize. In general, interviewees indicated that with site-specific training, if the content couldn't be standardized, at least the training methods and training providers could be.

Interviewees indicated consistently the following set of content areas for standardization, with the emphasis on confined space and working at heights to begin:

- working at heights
- confined space
- elevated work platform
- scaffolding
- trenches
- ground disturbance
- forklift
- zoom boom
- fire watch
- fire extinguisher

Section 6: Environmental Scan

Introduction and Scope

As defined in the study scope, the research team limited its scan of the safety training environment in Manitoba to safety training providers and courses as they apply in the commercial construction field. While it is true that some of the safety training and providers described in this section may also contribute to other sectors of the construction industry and other industries beyond construction, the organizations and content described are described as they apply to the commercial construction industry, in as much as possible.

Safety training relevant to the commercial construction industry includes safety training for workers to learn how to do their jobs safely or how to be safe on a worksite in general, as well as safety training for managers and supervisors to learn how to develop safety programs and manage safety procedures. Beyond specific instances where training for safety officers, managers, and supervisors is detailed, this review focused on safety training for workers.

This review details safety training provided by colleges, private vocational institutes, high schools, unions, non-profit organizations, governmental agencies, private training providers, online training providers, and employers. The review lists examples of safety courses offered by providers in Manitoba and describes course information, where available. These examples are not meant to be exhaustive, but rather to indicate the types of training offered by the organizations.

In understanding the safety training environment in Manitoba, or in any province for that matter, it is important to remember that the safety training occurring is, to some degree, influenced by safety training content and methods derived from national and international safety training organizations, regulators, and associations. It is important, therefore, to acknowledge that the approaches and methods used in Manitoba, are not necessarily limited to Manitoba alone.

Methods

The research team identified existing safety training providers through online searches of the Workers Compensation Board (WCB) and Construction Safety Association of Manitoba web sites, through general online searches and through requests made during in-person interviews. The research team categorized providers based on the type of organization they were and the training they provided.

Use of Standards in Construction Safety Training in Manitoba

Safety standards are being used by training providers in Manitoba to inform the development and delivery of safety training for commercial construction workers, however, those standards are not used consistently across all providers nor are the types of standards the same. Standards in use include several from Canadian sources such as the Canadian Standards Association (CSA), a number from American sources including the National Fire Prevention Agency (NFPA) and the

U.S. Occupational Health and Safety Administration (OSHA) and several from international sources such as the International Organization for Standardization (ISO). Interview respondents also mentioned the Oil Sands Safety Association (OSSA) safety training standards as being either a “gold standard” or helpful guide to developing quality safety training. In addition to standards from these organizations, training providers must use legislated standards for several subject areas in Manitoba such as Flag Person training, First Aid, and the safety standard for blasters although typically, those standards don’t apply directly in the commercial construction field, aside from First Aid.

Description of Standards Observed

Canadian Standards Association (CSA) Standards ⁶⁵

The Canadian Standards Association (CSA) is a not-for-profit membership-based association serving business, industry, government and consumers in Canada and the global marketplace. The CSA has published over 170 Occupational Health & Safety related standards documents. Key safety standards, including those related to training, include:

- CSA Z1000: Occupational Health & Safety Management Systems
- CSA Z1001: Occupational Health and Safety Training
- CSA Z1002: Occupational Health and Safety - Hazard Identification and Elimination and Risk Assessment and Control
- CSA Z1006-16: Management of work in confined spaces

Several interview respondents mentioned familiarity with CSA standards and that the standards influenced the nature of their safety training. The CSA follows a rigorous process of standards development using an industry-driven committee structure for developing and validating standards prior to publishing.

Oil Sands Safety Association (OSSA) Standards ⁶⁶

The Oil Sands Safety Association (OSSA) is a non-profit organization made up of representatives from major oil companies working in the Oil Sands project, as well as volunteer members from labour providers, unions, area contractors and learning providers. OSSA's objective is to bring together stakeholders to identify, develop and implement strategies and tools to create an incident-free workforce.

Recently, the Oil Sands Safety Association and Enform Canada, the safety association for the oil and gas industry, merged to form Energy Safety Canada. At the time of writing, there were no

⁶⁵ <http://shop.csa.ca/en/canada/about-us/page/aboutus>
<http://shop.csa.ca/en/canada/occupational-health-and-safety-management/canca-z1000-14/invt/27024062014&bklist=icat.6.shop.publications.ohs.ohsmanagementsystems.ohsmanagement>

⁶⁶ <http://ossa-wb.ca/about-ossa/about-ossa/>
http://ossa-wb.ca/tiny_upload/pdfs/news-release---energy-safety-canada---29sept2017.pdf
<http://www.energysafetycanada.com/files/pdf/EnergySafetyCanada-FAQs.pdf>
<http://www.ossa-wb.ca/standards-and-codes/standards-and-codes-description/>
http://www.ossa-wb.ca/tiny_upload/pdfs/application-and-program-submission-guidelines---2014-cumulative-draft-amendments.pdf

immediate changes to the service offerings of Enform or OSSA, including training and certification. The new organization's services continue to focus on safety training in the oil and gas industry, in particular, as they relate to the Oil Sands in Alberta.

OSSA has developed a number of safety training standards, three of which are related to commercial construction:

1. Fall Protection Standard
2. Elevated Work Platform Standard
3. Confined Space Entry and Monitor Standard

The purpose of each of these standards is to establish the minimum acceptable content requirements for training programs provided by training providers who have received accreditation from OSSA.

OSSA-accredited standards-based training is offered by several training providers located in Manitoba including Hazmasters and Hertz Equipment rental although these providers do so largely because they offer services across Canada and in the U.S. and because they offer services outside of the commercial construction industry, not because Manitoba construction employers regularly request OSSA standard safety training for their employees.

OSSA uses an accreditation process focusing on course materials and training methods to ensure its standards-based training is delivered effectively. An organization seeking OSSA accreditation must do so separately for each OSSA training program it plans to deliver. To receive accreditation, companies must provide:

- lesson plans
- training program tables of contents
- instructor and student manuals and workbook/handouts
- knowledge and proficiency tests
- testing processes

Each of the above elements is reviewed and assessed by OSSA to determine accreditation.

National Fire Protection Association (NFPA) Standards ⁶⁷

The National Fire Protection Association (NFPA) is an U.S.-based, global non-profit organization devoted to eliminating death, injury, property and economic loss due to fire, electrical and related hazards. NFPA publishes more than 300 consensus codes and standards that are adopted and used throughout the world. Most of NFPA's standards are product or procedural safety standards; however, there are also several safety training standards. Training providers in Manitoba such as Elite Safety Services and the Construction Safety Association of

⁶⁷ <http://www.nfpa.org/About-NFPA>
<http://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards><http://www.constructionsafety.ca/training/general-training-courses/>
<http://www.elitesafetyservices.ca/page.php?id=270>

Manitoba offer training based on NFPA standards, on topics including Confined Space Entry and Rope Rescue although again, this training is offered based on a specific employer demand.

Occupational Safety and Health Administration (OSHA) Standards⁶⁸

Occupational Safety and Health Administration (OSHA), part of the U.S. Department of Labor, has developed a number of safety training standards. OSHA's mission is to ensure the protection of workers and prevent work-related injuries, illnesses, and deaths by setting and enforcing standards and by providing training, outreach, education and assistance. Many OSHA standards include explicit safety and health training requirements to ensure that workers have the required skills and knowledge to do their work safely. OSHA safety standards for the Construction industry include safety training requirements for:

- Scaffolds
- Fall protection
- Stairways and ladders
- Confined spaces

International Organization for Standardization (ISO) Standards⁶⁹

The International Organization for Standardization (ISO) is an independent, non-governmental international organization with a membership of 162 national standards bodies. ISO has published 21,922 international standards and related documents, covering almost every industry. International standards ensure the quality, safety and efficiency of products, services and systems among those who adopt the standards.

The standard *ISO 45001 Occupational Health and Safety* (for publishing March 2018) provides a management framework for the prevention of work-related injury with the intended outcome of improving and providing a safe workplace for workers. While not speaking directly to challenges of the commercial construction industry or those related to workers, the standard describes the ways in which an organization can design systems proactively to prevent injury and illness.

International Construction Companies Operating in Manitoba

Typically, international construction companies operating in Manitoba have internal safety training programs that reference and make use of safety training standards. These companies' in-house standards and regulations govern how training occurs, the competency to be achieved by the workers and the content to be covered. These standards also describe the ways in which external safety training consultants are expected to deliver training when on-site and what content will be delivered to the workers. The programs are most often variants of existing standards such as ISO, OSHA or other training standards developed for the jurisdiction in which the company operates most prominently.

⁶⁸ <https://www.osha.gov/Publications/osh2254.pdf>

⁶⁹ <https://www.iso.org/about-us.html>, <https://www.iso.org/iso-45001-occupational-health-and-safety.html>

Canadian Organizations and Associations that Contribute to Manitoba's Safety Training Environment⁷⁰

National organizations such as the Canadian Centre for Occupational Health and Safety (CCOHS) and the Canadian Federation of Construction Safety Associations (CFCSA) contribute to the safety training environment in Manitoba through initiatives and programs that are implemented in various Canadian provinces, including Manitoba.

Canadian Centre for Occupational Health and Safety (CCOHS)

The Canadian Centre for Occupational Health and Safety (CCOHS) promotes the well-being of working Canadians by providing information, training, education, management systems and solutions that support health, safety and wellness programs. The Centre was created by Act of Parliament to promote the fundamental right of Canadians to a healthy and safe working environment.

CCOHS is governed by a Council consisting of government, employers and labour. CCOHS collaborates with many Canadian and international partners to develop projects that expand the quality and quantity of resources and programs available to workers and employers across the country including websites, e-courses, publications and research.

CCOHS has developed a number of Health and Safety programs applicable to the construction industry including its Confined Space Management program which incorporates third-party developed training courses in Confined Space Management and Confined Spaces. Other construction-related safety training courses developed by third parties and sold through the CCOHS include: Ladder Safety, Lockout, Personal Protective Equipment, Transportation of Dangerous Goods (TDG) and Working at Heights, available through online provider VUBiz. It is unclear whether these training programs are standards-referenced or whether their goal is general awareness.

Canadian Federation of Construction Safety Associations (CFCSA)⁷¹

The Canadian Federation of Construction Safety Associations (CFCSA) works as an umbrella organization for provincial and territorial Construction Safety Associations with a shared interest in promoting awareness of construction health and safety; improving information sharing, and; collaboratively producing workplace health and safety training standards/information resources. As a CFCSA participating member, the Construction Safety Association of Manitoba (CSAM) sits on the CFCSA's board. CFCSA influences safety training in Manitoba through CSAM with initiatives like the Certificate of Recognition™ (COR) program, a safety management program for organizations in the construction field. The COR program will be discussed in greater detail later in this section.

⁷⁰ <https://www.ccohs.ca/> <http://www.cfcsa.ca/terms.html#scope>

⁷¹ <http://www.cfcsa.ca/>

Safety Training Systems in Manitoba

The Apprenticeship System⁷²

Apprenticeship is a work based post-secondary training and job preparation program that leads to a Certificate of Qualification in a skilled trade. There are over 55 trade programs in Manitoba all of which include safety awareness curriculum that sets the requirement for safety awareness training delivered to apprentices in accredited educational institutions. As the standards and enforcement body for apprenticeship standards, Apprenticeship Manitoba is a major contributor to safety training in commercial construction.

Role of Apprenticeship Manitoba

Apprenticeship Manitoba coordinates the training and qualifications system that delivers accredited, structured, workplace-based skills, technical training and certifying exams to apprentices, leading to a journey person certification. Additionally, Apprenticeship Manitoba also facilitates certification through trade qualification for experienced tradespeople who seek formal certification in their trade and provides information and assistance to establish apprenticeship agreements between employers and employees, monitor on-the-job training and arrange for in-school training.⁷³

Apprenticeship Manitoba also provides support to the Apprenticeship and Certification Board by helping the Board reach goals set within its annual strategic plan. The Apprenticeship and Certification Board is the body that approves new or updates existing standards prior to implementation.

A main part of Apprenticeship Manitoba's role is to work with educational institutions to recognize and accredit trades-related training programs delivered by those institutions. Apprenticeship Manitoba ensures that training programs demonstrate conformance with defined technical training requirements and that the deliverers maintain their accreditation status.

Apprenticeship Manitoba develops curricula to meet the standards, of which safety awareness training is a component. Approved education institutions develop the specific training materials and methods by which the learning outcomes defined in the curriculum standard will be met including those for safety awareness.

⁷² <https://www.gov.mb.ca/wd/apprenticeship/discover/index.html>
<https://www.gov.mb.ca/wd/apprenticeship/generalinfo/instructoreducators.html>
<https://www.gov.mb.ca/wd/apprenticeship/discover/youth/index.html>
<https://www.gov.mb.ca/wd/apprenticeship/discover/mbtrades/index.html>
<https://www.gov.mb.ca/wd/apprenticeship/discover/mbtrades/certification.html>
<http://www.red-seal.ca/about/ccd.1-eng.html>

⁷³ <https://www.gov.mb.ca/wd/apprenticeship/generalinfo/index.html>

Commercial construction workers gain access to the trades safety awareness program by entering accredited apprenticeship training programs including:

1. Accredited program accessed during high school

At the high school level, two program options are available: 1. Provincial Accreditation through High School (PATHS) and 2. High School Apprenticeship Program (HSAP). Both programs offer dual credits in which students receive credit toward their high school diploma and credit towards future apprenticeship program activities. In PATHS, the student takes accredited Level 1 Apprenticeship training which includes safety awareness training while in high school. In the PATHS program, the student is not an apprentice; however, after high school graduation, the student can enter directly into their chosen apprenticeship at training Level 2, get a job to register as an apprentice and begin their practical, on-job component while continuing their apprenticeship training at an accredited post-secondary institute. In the HSAP program, the student enters their apprenticeship program during their high school years. The student completes the apprenticeship training available at their high school, which includes safety awareness, while also engaging with an employer during their high school years through which they begin the on-job component of their trade.⁷⁴

2. Accredited program accessed during post-secondary education

Apprenticeship Manitoba invites post-secondary training institutions to apply for accreditation for their trades-related training programs. During that process, Apprenticeship Manitoba supports the institution in meeting the requirements of the trades-related program for which they are applying.

Generally, post-secondary institutions also offer two streams: pre-employment training, which is theory-only and aimed at preparing workers prior to arriving at the job site, accredited Level 1 training (including safety awareness), and full apprenticeship training where the student takes all levels of accredited training and has an employer.

Apprenticeship Safety Training⁷⁵

In Manitoba, apprenticeship training is delivered by post-secondary training institutions including colleges and Private Vocational Institutes (PVIs) and by high schools.

As mentioned, accredited educational institutions develop specific training to meet the curricular requirements defined by Apprenticeship Manitoba. While safety training is integrated at all levels in all courses, there is only one specific unit of instruction on safety: the Trade Safety Awareness Unit.⁷⁶

⁷⁴ Interviews with Apprenticeship Manitoba, June 9, 2017 and July 4, 2017

⁷⁵ https://www.gov.mb.ca/wd/apprenticeship/pdfpubs/pubs/board/policies/trade_safety_awareness.pdf

⁷⁶ https://www.gov.mb.ca/wd/apprenticeship/pdfpubs/pubs/general/trade_safety/instructor.pdf

The Trade Safety Awareness Unit is a safety-specific unit that consists of nine lesson plans developed to provide 7 hours of instructional time on trade workplace safety and health, education and basic hazard control as a means to prevent long-term occupational injuries and disease. The Apprenticeship Trade Safety Awareness Unit is taught in all Level 1 technical training programs. The topics of the nine lessons in the Trade Safety Awareness Unit are:

- Workplace Safety and Health Issues
- Legal Rights and Responsibilities of Employers, Supervisors and Employees
- S.A.F.E. (Spot, Assess, Find, Everyday)
- Safety Hazards Recognition and Control Measures
- Workplace Hazardous Materials Information System (WHMIS) and Material Safety Data Sheets (MSDS)
- Personal Protective Equipment (PPE)
- Electrical Safety
- Fire Safety
- Confined Spaces - Hazards and Necessary Preparation

The Trade Safety Awareness Unit is a general unit that must be taught in all apprenticeship Level 1 training. However, it seems that the unit is also customized for the individual trades. For example, for construction electricians, in the Level 1 curriculum, unit A6 is Trade Safety Awareness which has a duration of 10 hours and includes objectives about ergonomics and first aid. For plumbers, in the Level 1 curriculum, unit A2 is Trade Safety Awareness which also has a duration of 10 hours and includes objectives about regulations on cleanliness in the working area, safe use of chemicals, scaffolding, and ladders and related equipment.⁷⁷

In addition to the Trade Safety Awareness Unit, training providers offer other general safety training. In most trades-related training, non-standardized, contextual safety training is integrated into courses covering use of specific tools and components of the job the apprentice must know to remain safe at school and that can transfer to their on-the-job activities later. Red River College, for example, offers a four-hour seminar called General Safety Training and the Manitoba Institute of Trades and Technologies offers a general course on Workplace Health and Safety.

SAFE Work Manitoba⁷⁸

SAFE Work Manitoba is the public agency dedicated to the prevention of workplace injury and illness. SAFE Work Manitoba offers prevention services previously provided by the Workers Compensation Board's SAFE Work Services Division and the Workplace Safety and Health (WSH) Branch of the Department of Labour. They also offer training programs and courses to the public.⁷⁹

⁷⁷https://www.gov.mb.ca/wd/apprenticeship/pdfpubs/pubs/discover/mb_trades/construction_electrician/const_elec_1_ev1.pdf

⁷⁸<https://www.safemanitoba.com/Education/Pages/Events.aspx>

⁷⁹<https://www.safemanitoba.com/safe-work-certified/Pages/default.aspx>

SAFE Work Manitoba has developed and administers a safety and health certification program called SAFE Work Certified.⁸⁰ SAFE Work Certified helps make workplaces safer and provides a financial reward to employers that take proactive steps to prevent workplace injuries and illnesses.

SAFE Work Certified was developed by SAFE Work Manitoba in partnership with an advisory group of stakeholders (the Safety Certification Working Group) that included representation from employers, labour and safety associations. SAFE Work Manitoba also held broad consultation with safety and health groups, professionals, businesses and labour.

The SAFE Work Certified program is overseen by SAFE Work Manitoba and is delivered through a network of industry-based safety and health programs (IBSP) and/or associations, which have been approved by SAFE Work Manitoba as Certifying Partners (CPs). CPs have the responsibility to offer employers industry-specific safety and health certification programs that meet the SAFE Work Certified criteria. CPs certify employers, monitor compliance with program requirements and serve as the employers' main point of contact for all operational aspects related to safety and health certification. The current CPs in the Manitoba construction industry are Manitoba Heavy Construction Association (MHCA) and the Construction Safety Association of Manitoba (CSAM). COR™/SECOR™ Certification Programs meet the standard of SAFE Work Manitoba's SAFE Work Certified.

Employers who wish to become certified through a safety and health certification program must work with their CP and their workers to attend safety training, develop safety and health programs, and complete an audit to verify that they have met the applicable safety and health requirements of the program.

SAFE Work Certified is built around the safety essentials of leadership commitment, hazard identification, risk control, and worker participation. The employer, worker representatives, and maintenance auditors complete safety and health courses delivered by the CP, including a combination of:⁸¹

- Principles of Safety and Health
- Safety Leadership
- Maintenance Auditor Training
- Worker Role in Certification
- Industry-specific safety training
- Occupation-specific training

The SAFE Work Certified program also includes requirements for:

- Auditing for Certification (Maintenance Auditors)
- Principles of Workplace Safety and Health Management
- Safety and Health Leadership
- Worker Participation in Safety and Health Certification

⁸⁰ <https://www.safemanitoba.com/topics/Pages/Safe-Work-Certified-Content.aspx>

⁸¹ https://www.safemanitoba.com/files/Safe%20Certified/safe_work_certified_version_january_2017_0.pdf

- Workplace Safety and Health Committee and Worker Representatives

In addition, the Safe Work Certified program is monitored on an ongoing basis by Safe Work Manitoba to ensure it contributes to the overriding goals of making workplaces safer and enhancing safety and health culture. The Safe Work Certified monitoring system considers a combination of "leading indicators" and "lagging indicators". "Leading indicators" are factors that contribute to injury and illness prevention, such as functioning Safety and Health Committees, training courses completed and results of worker perception surveys. "Lagging indicators" are the results of prevention efforts, such as injury rates, serious incidents, and the findings of WSH inspections.

Outside of the SAFE Work Certified program, SAFE Work Manitoba also offers safety courses including:⁸²

- Preventing Musculoskeletal Injuries
- Hazard Identification and Risk Control
- Investigating Workplace Incidents
- Prevention Basics
- SAFE Committee Basics
- Supervisors and SAFE Work

SAFE Work Manitoba also offers e-learning courses through a partnership with the Canadian Centre for Occupational Health and Safety (CCOHS). Topics include mental health, violence in the workplace, and WHMIS and are provided through a third-party relationship with an e-Learning producer.

Construction Safety Association of Manitoba (CSAM)⁸³

The Construction Safety Association of Manitoba (CSAM) is a non-profit organization run by and for the building construction industry in Manitoba. CSAM is administered by the Winnipeg Construction Association (WCA) and is an association under the umbrella of the WCA. CSAM is governed by the WCA's Board of Directors, as well as by the CSAM Advisory Committee. CSAM is also a participating member of the Canadian Federation of Construction Safety Associations (CFCSA).⁸⁴

CSAM offers many types of training and certifications to Manitoba's skilled trade's workforce including the Certificate of Recognition (COR™), the Small Employer Certificate of Recognition (SECOR™), the National Construction Safety Officer™ designation, and other general and job-specific safety courses.

COR™: is a recognition program that provides a structure for industry employers within which they can develop an effective safety and health management system. COR™ is nationally

⁸² <https://www.safemanitoba.com/Education/Pages/E-Learning-Courses.aspx>

⁸³ <http://www.constructionsafety.ca/training/secor-program/>

⁸⁴ <https://www.winnipegconstruction.ca/resources/safety/>
<http://www.constructionsafety.ca/about-csam/>

trademarked and endorsed by participating members of the CFCSA. As a participating member of the CFCSA, CSAM is designated as the authority with jurisdiction to grant COR™ certification in Manitoba. The COR program audits and certifies organizations' safety and health management systems that meet the standards defined in the COR program. The COR™ program outlines the ways in which organizations can build their safety program (e.g. risk assessment, safety talks, list of job tasks, safe work procedures, risk analysis).

For organizations to become COR certified, they must provide staff members who complete prescribed courses such as:

- Principles of Safety Management
- Safety Auditor Training
- Leadership for Safety Excellence
- One Train the Trainer Program (Hearing Conservation, Lockout/Tagout or WHMIS)

To gain and retain their COR certification, organizations must:

- develop a safety management system including manuals and a quality safety program.
- display senior management support through a senior manager attending the Principles of Safety Management course.
- complete all required COR™ courses.
- maintain audited documentation of safety practices.

COR™ is valid for three years, providing an organization maintains its eligibility in the COR™ program by meeting their annual audit requirements. It is important to note that the COR™ program trains safety officers, not workers.⁸⁵

CSAM is also an official partner of the SAFE Work Certified program. COR™ certified construction companies are eligible to receive a 15% rebate on their WCB premium or \$3,000 (up to 75%) whichever is greater. The COR™/SECOR™ Certification Programs meet the requirements of SAFE Work Manitoba's SAFE Work Certified program.⁸⁶

In addition to the COR™ program, CSAM also offers the National Construction Safety Officer (NCSO™) program. The program is designed to train and certify safety officers who meet the nationally-recognized level of competency defined by the Canadian Federation of Construction Safety Associations (CFCSA). Those that meet the requirements receive the National Construction Safety Officer (NCSO™) designation. The NCSO™ program provides practical training in construction safety management skills and principles. Those who achieve the NCSO™ designation must have three years of practical construction experience.⁸⁷

⁸⁵ <http://www.constructionsafety.ca/training/cor-program/>

⁸⁶ <http://www.constructionsafety.ca/training/cor-program/>

⁸⁷ <http://www.constructionsafety.ca/training/ncso/>

Compulsory courses in the NCSO program include:⁸⁸

- Principles of Safety Management
- Leadership for Safety Excellence
- Safety Auditor Training (plus completion of a COR™ internal audit)
- WHMIS Train the Trainer
- Prime Contractor
- Safety Administration
- WCB Basics OR RTW Basics
- First Aider I / CPR
- Hazard Identification and Risk Control
- Confined Space

Candidates must also take two electives from the following:

- Transportation of Dangerous Goods
- Legislation 101
- Safety Representative or Level 1 Safety & Health Committee

In addition to its COR and NCSO programs, CSAM also offers general safety training courses including titles such as:

- Confined Space Entry, Standby Worker & Non-Entry Rescue- Includes both theoretical lessons and practical components.
 - Confined Space Entry (*Day One, 8 hours*)
 - Standby Worker & Non-entry Rescuer (*Day Two, 8 hours*)
- Fall Protection: (*8 hours*) - Includes both theoretical lessons and practical components. Fall Protection Rescue is an optional second day of training that is available upon request.
- First Aider/CPR I (*8 hours*)
- First Aider/CPR II (*16 hours*)
- Hearing Conservation & Sound Monitoring (*4 hours*)
- Rigging Basics (*8 hours*)
- Transportation of Dangerous Goods
- WHMIS 2015 (*4 hours*)

CSAM also offers a number of online courses, however it is unclear whether these courses are purpose-built by CSAM or sourced through a third-party provider. Students who pass the final course test with 80% or higher receive a certificate of awareness. Example titles include:⁸⁹

- Aerial Lift

⁸⁸ <http://www.constructionsafety.ca/training/general-training-courses/>

⁸⁹ <http://www.constructionsafety.ca/training/online-training-courses/>

- Basics of Fall Protection
- Confined Space Awareness
- Construction Fall Protection: Get Arrested
- Electrical Safety: Beware of the Bite
- H2S Awareness (Hydrogen Sulfide/Sulfur Dioxide)
- Hazard Recognition and Control
- Ladders
- Lockout/Tagout: Lightning in a Bottle
- Scaffold Safety
- TDG – Transportation of Dangerous Goods
- Trenching and Shoring
- Welding Safety: Safe Work with Hotwork
- WHMIS: Your Safety Net
- WHMIS: In Sync with GHS (Global Harmonized System)
- Working Safely with Power Tools

Recently, CSAM released a new Manitoba training standard for Working at Heights based on the Ontario standard. The standard outlines the minimum requirements to be met by designated Working at Heights training programs including both a training content standard and a training provider standard. The standards set out the minimum requirements training programs and training providers must meet when conducting Working at Heights training in Manitoba. SAFE Work Manitoba has approved this training standard as “best practice” for Working at Heights training in Manitoba with future developments focusing on recognition and accreditation given to individual Working at Heights trainees and training providers.

Other Manitoba Safety Training Providers

This section provides an overview of organizations that provide construction safety training in Manitoba and describes the types of programs and safety courses offered. Safety training providers have been organized into the following categories:

- Colleges’ and High Schools Trades Related Programs
- Private Vocational Institutes (PVI’s) and Union Training Providers
- Non-profit and Governmental Organizations
- Private Training Providers
- Online Training Providers
- Construction Companies and Employers

Colleges’ and High Schools’ Trades Related Programs

*Red River College (RRC)*⁹⁰

RRC offers programs and courses in several skilled trades programs under the Apprenticeship banner. Commercial construction relevant programs include:

⁹⁰ <http://me.rrc.mb.ca/Catalogue/Course.aspx?RegionCode=WPG&ProgCode=CABWF-CT&CourseCode=SEMR-9209>

- Cabinetry and Woodworking
- Cabinetry and Woodworking Technology
- Carpentry
- Electrical
- Plumbing
- Plumbing Cross Connection Control
- Air Conditioning Technician
- Welding

RRC's apprenticeship training meets the safety training requirements of Apprenticeship Manitoba's curriculum. RRC offers two safety courses, listed and described below, that are required in most skilled trades programs. RRC defines its safety training role as "awareness training" and tries to integrate awareness of safety into all its technical courses regardless of whether they are apprenticing trades or not. Instructors emphasize safety and strive to have students use safe work practices in all classroom learning and demonstration situations. Aside from offering the Trades Safety Awareness Unit required in apprenticeship programs, RRC also offers:

SEMR-9209: General Safety Training (4 hours)

This seminar contains general safety content to prepare students with the core information necessary for them to protect themselves in workplaces of all types.

General Safety Training is offered at the beginning of all pre-employment programs. It is an introduction to workplace health and safety and speaks to the Health and Safety Act, safe work procedures, workers right to education, employer's responsibilities, safety committees, and responsibilities of various stakeholders. The seminar requires completion of an open-book test. To pass, students must achieve 80% or more on the test.⁹¹

General Safety Training consists of 4 units:

1. Young and New Workers at Risk
2. Workplace Injuries
3. Hazard Identification and Hazard Evaluation
4. Joint Workplace Safety and Health Committee

SAFE-1028 WHMIS

This course prepares individuals to understand and interpret information about hazardous products, including symbols, labels and Material Safety Data Sheets (MSDS).⁹²

The General Safety Training and WHMIS courses are offered across all RRC programs. While these safety courses meet apprenticeship curricular requirements, due to their general relevance

⁹¹ SEMR-9209_CourseOutline_.pdf : Email from RRC Instructor, June 26, 2017

⁹² <http://me.rrc.mb.ca/Catalogue/Course.aspx?RegionCode=WPG&ProgCode=CABWF-CT&CourseCode=SAFE-1028>

they may also be offered outside of apprenticeship training. In addition to these two courses, RRC courses cover specific safety topics related to each trade individually and the hazards associated with each of the work areas and tools in each shop.⁹³

The College also offers trade-specific safety courses, which include:⁹⁴

- Plumbing trades program-SAFE-1011 Safety and Rigging
- Cabinetry and Woodworking trades program -SAFE-1027 Cabinetry and Woodworking Trade Safety
- Electrical trades program- ELEC-1005 Trade Safety Awareness
- Refrigeration & Air Conditioning Technician trades program-SAFE-1010 Trade Safety
- Welding trades program-WELD-1041 Safety in Welding & Cutting

Red River College also offers safety training programs through the programs it offers in its Continuing Education department and through those provided by its Corporate Solutions group. These may or may not be part of a trades program but are taken outside of a typical classroom day-program setting.

Manitoba Institute of Trades and Technology (MITT)⁹⁵

The Manitoba Institute of Trades and Technology (MITT) offers 9 skilled trades programs. While not a comprehensive list, some of the trades areas include:

- Carpentry
- Industrial Electronics
- Industrial Mechanic / Millwright
- Industrial Welding
- Electrical Applications

Like RRC, MITT integrates safety training into each course requirement and offers a general safety training course, "Workplace Health and Safety". This course introduces students to health and safety requirements as well as WHMIS, MSDS, and working safely with various machinery and equipment.

Assiniboine Community College⁹⁶

ACC offers several skilled trades programs. Commercial construction relevant programs include:

- Welding
- Plumbing
- Carpentry
- Gas Fitting
- Construction Electrician

⁹³ Email interaction with RRC, June 26, 2017

⁹⁴ <http://me.rrc.mb.ca/catalogue/CourseDescriptions.aspx?ProgCode=OCCHP-CT&RegionCode=GC>

⁹⁵ <http://mitt.ca/programs/post-secondary-programs/41/industrial-mechanic-millwright/course-information>

⁹⁶ <http://assiniboine.net/> <http://assiniboine.net/customized-training>

Assiniboine Community College delivers apprenticeship training as defined by Apprenticeship Manitoba and therefore integrates safety awareness into all its technical programs. Assiniboine also offers *WRKP-0020: Workplace Health and Safety* course, an example of a safety awareness course offered that is not a requirement of Apprenticeship Manitoba.

Assiniboine Community College also offers safety training programs that are tailored to meet specific workplace safety procedures of businesses offered by the Centre of Continuing Studies. These may or may not be part of an apprenticeship program but are meant to address the needs of businesses. These courses can include titles such as:

- Fall Protection
- Confined Space Entry
- Hydrogen Sulfide (H₂S) Alive
- WHMIS
- Transport of Dangerous Goods
- CPR/First Aid/Standard First Aid/Emergency First Aid

University College of the North⁹⁷

University College of the North (UCN) offers a wide range of certificate, diploma and apprenticeship and professional development training. UCN offers part-time studies, contract training and the in-school technical training component in three apprenticeship trades:

- Millwright
- Electrician
- Carpenter

Safety awareness training is integrated in courses as required by the apprenticeship curriculum.

High Schools⁹⁸

As mentioned earlier, high schools offer vocational programs from grades 10-12, organized in clusters. For each cluster, there are 8 required courses corresponding to 880 hours of instruction. High schools teach both vocational courses and industrial arts courses. For the vocational courses, the curriculum includes all of the Apprenticeship Manitoba Level 1 curriculum.

The Trade Safety Awareness Unit as discussed previously, is implemented in all Level 1 technical training programs for students. High school students enrolled in accredited courses are required to participate in this seven-hour unit of instruction.

Beyond required apprenticeship safety awareness, high schools also determine the need for additional safety training which is then incorporated into the Manitoba high school curriculum. Teachers are required to comply with the curriculum and may go beyond the curriculum and add

⁹⁷ <https://www.ucn.ca/sites/academics/tradetech/Pages/Faculty-of-Trade-and-Technology.aspx>

⁹⁸ <http://www.gov.mb.ca/wd/apprenticeship/generalinfo/instructoreducators.html>

additional safety training required by the school or by the division. This type of additional safety training supports the safety of students while they are at school.⁹⁹

Below is a list of high schools that offer apprenticeship training within Manitoba.

- Crocus Plains Regional Secondary School (Brandon)
- Dauphin Regional Comprehensive Secondary School (Dauphin)
- Frontier Collegiate (Cranberry-Portage)
- Portage Collegiate Institute (Portage la Prairie)
- R. B. Russell Vocational School (Winnipeg)
- Steinbach Regional Secondary School (Steinbach)
- Swan Valley Regional Secondary School (Swan River)
- Technical Vocational High School (Winnipeg)
- W. C. Miller Collegiate (Altona)
- Lord Selkirk Regional Comprehensive Secondary School (Selkirk)
- Kildonan-East Collegiate (Winnipeg)
- Louis Riel Arts & Technology Centre (Winnipeg)
- Northlands Parkway Collegiate (Winkler)
- Collège Sturgeon Heights Collegiate (Winnipeg)
- Morden Collegiate (Morden)
- Morris School (Morris)

The following excerpted course description, taken from provincial curriculum document 8584 *Introduction to Carpentry (9) 15S/15E/15M, 10S/10E/10M: A Carpentry Course*, shows how safety training is integrated in an Introduction to Carpentry course from the High School Vocational Trades Curriculum.¹⁰⁰

“This optional course allows students to explore carpentry. It can be offered as either a half- or full-credit course. The learning outcomes include:

- Describe and apply appropriate health and safety practices.
- Demonstrate an understanding of and adherence to health and safety practices.
- Demonstrate knowledge of the Trade Safety Awareness Manual.”

PVI's and Unions

Private Vocational Institutes and Unions are significant participants in the safety training field for the commercial construction trades in Manitoba. The two are combined in this section to recognize the fact that many unions meet their trades-related training needs through an affiliated PVI. In addition, their training focuses on:

- occupation-specific safety requirements.
- apprenticeship-required safety awareness training.

⁹⁹ <http://www.edu.gov.mb.ca/k12/cur/techd/sytep/carpentry/8584.pdf>

¹⁰⁰ Interview with Gilles Landry (Distance Learning and Technical-Vocational Education Consultant at Manitoba Education and Training) on June 12th 2017.

- general safety training required for worksites delivered in-house or through third party safety training providers (online and face to face).

Neeginan College of Applied Technology of the Centre for Aboriginal Human Resource Development (CAHRD)¹⁰¹

Neeginan College of Applied Technology is a private vocational institute (PVI) that offers technical and vocational post-secondary training and apprenticeship programs. Construction trades related programs offered by Neeginan include:

- Carpentry/Construction
- Gas Tungsten Arc/Tungsten Inert Gas Welding
- Welding

CAHRD delivers apprenticeship and pre-employment training accredited by Apprenticeship Manitoba. All apprenticeship programs cover the course material required for Level 1 Apprenticeship with additional theoretical and practical skills and safety training. Students receive training in workplace safety, WHMIS and First Aid/CPR.

CAHRD, along with several partners including WCB also developed the Manitoba Aboriginal Health & Safety Initiative, which is an Online Learning Centre (OLC) providing culturally appropriate health and safety training resources for Aboriginal workers, employers of Aboriginal workers, Unions, Aboriginal organizations, and employment preparation programs.

Piping Industry Technical College of Manitoba (PITC)¹⁰²

The Piping Industry Technical College of Manitoba (PITC) is a PVI operated by the United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry of the United States and Canada, Plumbers and Pipefitters Local Union 254. PITC delivers the Plumbing and Pipe Trades program. Students who complete this program receive credit toward a plumbing apprenticeship, which includes exception from Level 1 Technical Training in Plumbing.

PITC satisfies the curriculum requirements of Apprenticeship Manitoba Level 1, of which safety awareness is a component.

Operating Engineers Training Institute of Manitoba (OETIM) Inc¹⁰³

OETIM is a PVI which was initially founded by the Operating Engineers of Manitoba Local 987 (OE987). OETIM is a non-profit organization with the primary directive of providing upgrading and training to people in the crane and heavy equipment industries. OETIM has developed into a separate training centre with a broader spectrum of clientele beyond the Operating Engineers. The institute is governed by a Board of Trustees that includes labour and management personnel.

¹⁰¹ <http://cahrd.org/education-training/neeginan-college-of-applied-technology/#cahrd.org/education-training/>

¹⁰² <http://www.ualocal254.ca/pitc>

https://www.gov.mb.ca/wd/apprenticeship/pdfpubs/pubs/discover/mb_trades/plumber/plumber_level1.pdf

¹⁰³ <http://www.oetim.com/>

OETIM offers classroom courses and practical training to crane and equipment operators. Course-specific safety awareness materials are delivered through e-Learning, in the classroom and in preparation for practical training through a pool of Red Seal journeypersons and other qualified tradespeople who deliver safety awareness and training courses on behalf of OETIM.

OETIM also offers a variety of safety training courses through third party provided e-Learning which include:

- Ground Disturbance Safety Training (6 hours)
- Transportation of Dangerous Goods (3.5 hours)
- Construction Safety Training System (CSTS-09) (6-7 hours)
- WHMIS (Workplace Hazardous Materials Information System)

Prairie Arctic Trades Training Centre (PATTC)¹⁰⁴

Prairie Arctic Trades Training Centre (PATTC) is a PVI owned by the United Brotherhood of Carpenters. PATTC's head offices are in Saskatoon but it offers training at its training centres in Saskatoon, Regina and Winnipeg. At the Winnipeg centre, PATTC is equipped to deliver safety, scaffold and carpenter training programs.¹⁰⁵

In Manitoba, PATTC scaffold apprenticeship training is provided to members of the United Brotherhood of Carpenters. PATTC also offers a 20-week pre-employment carpentry program which is recognized for time and Level 1 apprenticeship training credit by Apprenticeship Manitoba. All pre-employment courses include safety training as a mandatory component.

PATTC also offers safety training outside their Apprenticeship training programs on a fee-for-service basis to employers or workers. The courses include:

- First Aid/CPR (2 day)
- Fall Protection (1 day or 2 day)
- Confined Space (1 day or 2 day)
- Rigging and Signaling Safety (2 day or 5 day)

International Brotherhood of Electrical Workers (IBEW) 2085¹⁰⁶

IBEW 2085 is a local union of the International Brotherhood of Electrical Workers serving construction electricians in Manitoba. In addition to a list of trades-specific programs, the IBEW also provides safety training either on-site or through courses offered by Safety Services Manitoba. Examples of the titles offered by Safety Services Manitoba include:

- Confined Space (2 days)
- Confined Space Refresher (Theory only, 1 day)
- Fall Protection (1 day)
- First Aid Level 1(1 day)

¹⁰⁴ <http://www.pattc.ca/programs#safety>

¹⁰⁵ <http://www.pattc.ca/facilities>

¹⁰⁶ <https://ibew2085.com/>

- First Aid Level 2 (2 days)
- Lockout (1/2 day)
- Respirator Fit Testing

Christian Labour Association of Canada (CLAC)¹⁰⁷

CLAC is a national organization of 25 affiliated active local unions. CLAC offers numerous safety training courses through its member centre located in Winnipeg. Classroom-based construction specific courses offered at the time of writing include:

- Confined Space Attendant & Non-Entry Rescue
- Confined Space Entry
- H2S Alive
- Fall Protection
- Standard First Aid Training

These courses are delivered in Winnipeg and Brandon by various training providers including Hazmasters and Elite Safety Services.

CLAC also offers online safety training courses provided through the third-party Construction Safety Training System including:

- Confined Space Awareness
- Construction Safety Training System (CSTS-09)
- Electrical Safety Training System (ESTS)
- Fire Safety Training
- First Level Supervisor Training (FLST)
- CSA Gold Seal Approval Online Daily
- Ground Disturbance for Supervisors Level 1&2
- Transportation of Dangerous Goods (TDG)
- Workplace Hazardous Materials Information System (WHMIS)

CLAC also offers accredited Working at Heights training meeting the Ontario standard and a behaviour-based safety training course.

Non-Profit Organizations

Non-profit organizations such as associations or other member-driven organizations play an important role in the environment of safety training in Manitoba by representing members and delivering safety training. This section discusses the following organizations: Construction Association of Rural Manitoba, Safety Services Manitoba, the Manitoba Construction Sector Council, and Merit Contractors Association of Manitoba.

¹⁰⁷ <https://www.clac.ca/Your-work/Training/Manitoba>

Construction Association of Rural Manitoba (CARM)¹⁰⁸

The Construction Association of Rural Manitoba currently has approximately 200 members. The association works for the interests of the industry through advocacy, lobbying and education activities and provides direct services to members.¹⁰⁹

Although CARM offers construction-specific training in areas such as social networking and computer skills, CARM does not appear to offer safety training. Instead, CARM directs its members to the Construction Safety Association of Manitoba's Brandon office for safety training.¹¹⁰

Safety Services Manitoba (SSM)¹¹¹

Safety Services Manitoba is a not-for-profit organization that provides safety training and consulting services in occupational and road safety. SSM offers construction safety courses and also serves a broader scope of industries beyond construction. General health and safety training courses offered for workers are listed below with SSM also offering a number of courses for supervisors and inspectors. The courses are offered at SSM premises and on-site.

Supervisor courses include:

- Construction Safety Representative (*1/2 day*)
- Heart & Stroke First Aid Instructor Course (*2 days*)
- Incident Investigation/Investigating Workplace Incidents (*1 day*).
- Safety Committee Basics (*1 day*)

Worker courses include:

- Emergency Response (*2 days*)
- First Aid Emergency CPR/AED (Level 1) - Emergency First Aid (*1 day*)
- First Aid (Level 2) - Standard First Aid (*2 days*)
- Hazard Recognition, Evaluation and Control (*1/2 day- 4 hours, theory and practical components*)
- Heartsaver® (CPR/AED Training)
- Inspections/Inspecting Your Workplace (*1 day*)
- Job Task Analysis (*1/2 day, theory and practical components*)
- Preventing Workplace Violence (*1 day*)
- Transportation of Dangerous Goods – Air (*2 days*)
- Transportation of Dangerous Goods - Ground (*1/2 day- 4 hours, theory and test*)

Specialized construction safety courses offered include:

- Arc Flash (*1 day*)
- Chainsaw Safety (*1 day, theory and practical components*)
- Confined Space (*2 days*)
- Confined Space Refresher/Awareness (*1/2 day, theory and practical components*)

¹⁰⁸ <http://www.carm.ca/about-us/history/>

¹⁰⁹ <http://www.carm.ca/events/upcoming-20172018-training/>

¹¹⁰ <http://www.carm.ca/safety/>

¹¹¹ <http://www.safetyservicesmanitoba.ca/occupational-safety-training/>

- Confined Space Rescue (2 days, designed for Emergency Response Team members)
- Fall Protection (1 day, includes a written and practical skill assessment)
- Fire Simulator: Extinguisher (2 hours, written and practical skill assessment)
- Lockout (1/2 day, theory and practical components)
- Overhead Crane Awareness (1/2 day, theory and practical components)

Manitoba Construction Sector Council (MCSC)¹¹²

The Manitoba Construction Sector Council (MCSC) is the industry's human resource council and acts as a federation for its current five industry associations. It aims to promote and coordinate the development of a diverse, inclusive, well educated workforce in support of careers in the construction industry.¹¹³

The MCSC is committed to strengthening the skills of the province's construction sector workforce. The activities of the organization are guided by representatives of:

- Construction Association of Rural Manitoba
- Manitoba Building Trades
- Manitoba Heavy Construction Association
- Manitoba Home Builders Association
- Winnipeg Construction Association

MCSC offers programs in the construction industry but does not currently offer front line safety-related training to workers.

Merit Contractors Association of Manitoba¹¹⁴

Merit Contractors Association of Manitoba supports and represents the interests of open shop contractors. The organization consists of over 270 Manitoba companies. Merit offers benefits, services, and educational programs to the construction industry. Most of Merit's classroom and online training is not specifically safety-related.

Safety-related online courses offered through third party suppliers include:

- National Construction Safety Awareness (6 hours)
- Confined Spaces Safety Awareness (3 hours)

Private Training Providers

This section lists private safety training providers offering training in Manitoba. For many providers, it was difficult to determine course details, which led the research team to note that for some of the providers reviewed, it appeared some of their extensive list of courses consisted mainly of third-party provided courses. This approach meant that to determine the degree to which standards are used in safety training by private training providers in Manitoba required

¹¹² : <https://www.mbcsc.com/>

¹¹³ <http://mailchi.mp/e2189e08c7a8/spring-2017-mcsc-newsletter>

¹¹⁴ <https://www.meritmb.com/services/history/>

review of training materials not produced or maintained in Manitoba. This was considered outside the scope of the current research.

In reviewing lists of online courseware, the research team noted that many of the catalogue entries for a number of private training providers was maintained by BIS Training Solutions, and the content is provided through SafetyNET, a network listing over 200 companies from across North America that develop and share online safety training courses. Companies that use the SafetyNET content use BIS Training Solutions' Learning Management System (LMS), BIStrainer. Construction-related safety training courses in the SafetyNET catalogue include:¹¹⁵

- Aerial and Scissor Lift Safety
- Caught-In or-Between Hazards in Construction
- Confined Space Awareness & Rescue
- Confined Space Awareness for Entrants and Monitors
- Confined Space Entry
- Confined Space Entry and Monitor
- Fall Prevention for Construction
- Fall Protection
- Forklift Operator Safety
- Lockout Tagout
- Safety Construction Orientation Training (SCOT)
- Scaffold Safety
- Skid Steer Safety
- Slips and Trips for Construction
- Transportation of Dangerous Goods (TDG)
- Workplace Hazardous Materials Information System (WHMIS)

Hazmasters¹¹⁶

Hazmasters is a subsidiary of Wesco Distribution Canada and has branches in all Canadian provinces. Hazmasters offers safety training as well as other services including:¹¹⁷

- Product inspections
- Delivery of safety products
- Product orientation
- Equipment repair and maintenance
- Respiratory equipment fit testing
- Product and equipment rentals and leasing
- Equipment calibration
- Testing of HEPA filtered equipment
- Equipment re-certification¹¹⁸

¹¹⁵ <http://www.trainanddevelop.ca/System-and-Course-Summary.pdf>

¹¹⁶ <http://www.hazmasters.com/hazsafeed-training>

¹¹⁷ <http://www.hazmasters.com/branch-listing>

¹¹⁸ [http://www.hazmasters.com/documents/CreatorsOfSaferWorkEnvironmentsEVersionApril2015\(EN\).pdf](http://www.hazmasters.com/documents/CreatorsOfSaferWorkEnvironmentsEVersionApril2015(EN).pdf)

Hazmasters has been providing safety products and training since 1989. Their business includes two brands: HazSafeID and HazSafeED. HazSafeID services include complete inspection, identification and monitoring services for safety products and equipment. HazSafeED provides safety training and education services.¹¹⁹

In Manitoba, Hazmasters' offers three construction-related safety training courses:¹²⁰

- Fall Protection End User (1 day; 8 hours)
- Confined Space Entrant (1 day; 8 hours)
- Confined Space Attendant/Entry Supervisor (2 days; 16 hours)¹²¹

All three courses include a theory component and a hands-on, practical component. Both components are evaluated using a written test for the theory and a proficiency checklist for the practical portion.¹²²

Training is delivered at the client's facility or job site, or at Hazmasters' training centres. The company also offers Oil Sands Safety Association (OSSA) accredited fall protection training and are accredited directly by OSSA. Hazmasters are also a BC Construction Safety Alliance NCSO™ approved provider for fall protection and confined space entrant training.

Elite Safety Services¹²³

Elite Safety Services is a Manitoba company providing customized safety training and standby services to a wide variety of sectors, including industrial, construction, manufacturing, and oil and gas across Western Canada. The company is owned and operated by former professional firefighter paramedics. In addition to offering safety training, Elite Safety Services offers services in rescue, turnaround safety, medical services, drug and alcohol testing, consulting and can provide construction safety officers.

Elite Safety Services offers safety training courses in Brandon and Winnipeg. Construction safety training courses are designed around the Manitoba Workplace Safety and Health Act requirements. Several of the courses also cover the competencies included in the National Fire Protection Association (NFPA) standard 1006: Standard for Technical Rescue Personnel Professional Qualifications. All of the courses below include both theory and practical components. Courses offered include:

- Working At Heights: Manitoba (1 day, 8 hours)
- Fall Protection Training - Provincial / Federal: (1 day, 8 hours)
- Fall Protection Rescue (1 day, 8 hours)
- NFPA 1006 Rope Rescue (5 days)
- Confined Space Entry (1 day, 8 hours)
- Non-Entry Rescue (1 day, 8 hours)
- NFPA 1006 Confined Space Rescue (5 days, 8 hours)

¹¹⁹ [http://www.hazmasters.com/documents/SafetyTrainingCalendar\(MB\).pdf](http://www.hazmasters.com/documents/SafetyTrainingCalendar(MB).pdf)

¹²⁰ <http://www.hazmasters.com/documents/MB-WIN-FallProtectionEndUserTraining.pdf>

¹²¹ <http://www.hazmasters.com/documents/MB-WIN-ConfinedSpaceAttendantEntrySupervisorTraining.pdf>

¹²² <http://www.hazmasters.com/documents/MB-WIN-ConfinedSpaceEntrantTraining.pdf>

¹²³ <http://www.elitesafetyservices.ca/page.php?id=235>

- Ground Disturbance Level 2 (*1 day, 8 hours*)
- Ladder Safety (*1/2 day, 4 hours*)
- Scaffolding (*1 day, 8 hours*)
- Transportation of Dangerous Goods (*1/2 day, 4 hours*)
- WHMIS (*1/2 day, 4 hours*)
- Hydrogen Sulfide (H₂S) (*1 day, 8 hours*)
- Elevated Work Platforms (*1 day, 8 hours*)

Elite Safety Services also sells online training produced by the Canadian Red Cross. Construction-related online safety training courses include:

- Lockout / Tagout
- WHMIS
- Transportation of Dangerous Goods (TDG)

*Safety Source*¹²⁴

Safety Source is located in Virden, Manitoba and Redvers, Saskatchewan and offers its products, training and additional services to Manitoba and south-eastern Saskatchewan. Safety Source's business consists of three main areas: selling safety equipment, providing safety training, and offering safety consulting services.

Safety Source's safety training is delivered at their premises or at the client's location. Some of the courses are theory-based only while others have both theory and practical components.

Construction-specific safety training courses offered that are theory-only include:¹²⁵

- Confined Space Entry (*8 hours*)
- Aerial Lift Safety (*1/2 day, 4 hours*)
- Ground Disturbance Level II: (*theory only*)
- Transportation of Dangerous Goods: (*1/2 day, 4 hours, theory only*)
- WHIMS: (*1/2 day, 4 hours, theory only*)

Construction-specific safety training courses offered having both theory and practical components include:

- Hydrogen Sulfide (H₂S) Alive (*1 day, 8 hours*)
- Fall Protection (*8 hours*)
- Fall Protection and Rescue (*2 days, 16 hours*)
- Fire Safety Level II (*1 day, 8 hours*)

Safety Source also offers online safety training courses through SafetyNET.

¹²⁴ <http://www.discoverysafety.com/training/>

¹²⁵ <https://www.bistrainer.com/index.cfm?action=store.home&category=196&CourseCat=1&Language=1>

Rae's Training & Consulting¹²⁶

Rae's Training & Consulting was established in 2000 and is a Canadian-based company located in Winnipeg. The company specializes in on-site equipment operator training and serves a number of different industries. In addition, Rae's Training & Consulting provides consulting services for crane lifts, rigging lifts and pile driving. Their courses are developed according to the latest Government legislation and requirements.¹²⁷

Construction safety training courses offered include:

- Confined Space Entry
 - Basic (1 day)
 - Intermediate (2 days)
 - Refresher Recertification (1/2 day to 2 days)
- Confined Space Entry Supervisor
 - Basic (1 day)
 - Intermediate (2 days)
 - Refresher Recertification (1/2 day to 2 days)
- Confined Space Rescue
 - Advanced (3 to 4 days)
 - Refresher Recertification (1/2 day to 2 days)
- Fall Protection Level One
 - Basic (1 day)
 - Intermediate (2 days)
 - Refresher Recertification (1/2 day to 2 days)
- Fall Protection Level Two
 - Intermediate (2 days)
 - Refresher Recertification (1/2 day to 2 days)
- Fall Rescue
 - Advanced (3 to 4 days)
 - Refresher Recertification (1/2 day to 2 days)

Rae's Training & Consulting instructors have achieved their Canadian Red Seal Endorsement for Heavy Equipment & Crane Training. The company presents a Certificate of Training or a Certificate of Qualification to those who complete the courses satisfactorily. These certificates are certificates of completion rather than certificates of competency.

Rae's Training & Consulting also offers online safety training courses through SafetyNET.

Province Wide Safety Training Ltd¹²⁸

The company provides onsite workplace health and safety training and certification courses for workplaces in Winnipeg and all of Manitoba. Construction safety training courses offered are listed below.¹²⁹

¹²⁶ <http://www.raetraining.ca/Training-Services.page>

¹²⁷ <https://www.bistrainer.com/index.cfm?action=store.home&category=181>

¹²⁸ <http://www.provincewidesafetytraining.ca/>

Train the trainer courses:

- Forklift (2 days)
- Skid Steer (2 days)
- Scissor Lift/Aerial Lift (2 days)
- Telehandler (2 days)
- Bucket Truck (2 days)
- WHMIS 2015 (GHS) (1 day)
- Fall Protection (2 days)
- Truck Mounted Crane (2 days)

The WHMIS course is theory-only; the other courses have both theory and practical components.

Worker courses:

- Forklift (1 day)
- Skid Steer (Bobcat) (1 day)
- Scissor Lift/Aerial Lift (1 day)
- Telehandler (Zoomboom) (1 day)
- Bucket Truck (1 day)
- WHMIS 2015 (GHS) (3-4 hours)
- Fall Protection (1 day)
- Truck Mounted Crane (1 day)

The WHMIS course is theory-only; the other courses have both theory and practical components.¹³⁰

Province Wide Safety Training also offers online safety training courses, listed below. The courses are provided by Online Learning Enterprises, based in Ontario, providing an online learning portal for health and safety.

- Supervisor courses:
 - Workplace Inspection
 - Incident Investigation
- Worker courses:
 - Aerial Lift
 - Confined Space Awareness
 - Fall Protection
 - H2S
 - Lift Truck
 - Lockout

¹²⁹ <https://89688.learning-cart.com/en/products?locale=en>

¹³⁰ <https://olelearning.com/online-store/>

- Manual Materials Handling
- Transportation of Dangerous Goods (TDG)
- WHMIS

*Premonition Safety Solutions*¹³¹

Premonition Safety Solutions was founded in 2010 and provides customized training based on a client's industry and worksite. The company is located in Winnipeg. In addition to offering occupational safety courses, Premonition Safety Solutions also offers road safety courses, other safety services such as confined space watch/rescue, consulting services, respirator fit testing, safety inspections, site safety officers, and equipment rental.

Construction safety training courses offered include:

- Aerial Work Platforms (*1 day*)
- Boom Truck Operator (*1 day*)
- Chainsaw Safety Awareness (*1 day*)
- Confined Space Level 1 - Confined Space Awareness (*1 day, theory only*)
- Confined Space Level 2 - Confined Space Entry (*2 days*)
- Fall Protection (*1 day*)
- Emergency First Aid & CPR (*6.5-8 hours*)
- Flag Person Safety (*1 day*)
- Lift Truck (Forklift) (*1 day*)
- Lockout (*1/2 day*)
- Overhead Crane Awareness (*1 day*)
- Rough Terrain Lift Truck (Telehandler) (*1 day*)
- Skid Steer (*1 day*)
- Transportation of Dangerous Goods: (*1/2 day*)
- Wheel Loader Safety (*1 day*)
- WHMIS (*1/2 day*)

With the exception of Confined Space Level 1, all other courses listed above include both theory and practical components.

In the course descriptions, Premonition Safety Solutions lists numerous standards and other guiding documents under "Reference Material", including Manitoba regulations, Manitoba codes of practice, guidelines, federal regulations, and CSA Standards. The references to regulations and standards suggest that the course materials are developed to include content that is aligned with established standards, regulations, and guidelines.

These include:

- Manitoba Regulation Part 28 - Scaffolds and Other Elevated Work Platforms
- CSA Standard-Z62.1-03 – Chain Saws
- Manitoba Regulation Part 15 - Confined Space

¹³¹ <http://www.premonitionsafety.com/what-we-do>

- Confined Space Code of Practice for Manitoba
- Federal Regulation Part 11 - Confined Spaces
- CSA Standard Z1006-10 - Management of Work in Confined Spaces
- Manitoba Regulation Part 14 - Fall Protection
- Manitoba Fall Protection Guide
- Federal Regulation Part 12 - Fall-Protection Systems
- Manitoba Regulation Part 05 - First Aid
- Federal Regulation Part 16 - First Aid
- Manitoba Regulation Part 20 – Vehicular and Pedestrian Traffic
- CAN/CSA Standard Z96-02 – High Visibility Safety Apparel
- Manitoba Regulation Part 22 - Powered Mobile Equipment
- Manitoba Code of Practice - Safe Operation Powered Lift Trucks
- Federal Regulation Part 14 - Material Handling
- Manitoba Regulation Part 16 - Machine, Tools, and Robots (Lockout)
- Federal Regulation Part 13 - Tools and Machinery
- Manitoba Regulation Part 23 – Cranes and Hoists
- CAN/CSA Standard B167-96 (R2002) – Safety Standards for Maintenance and Inspection of Overhead Cranes, Gantry Cranes, Monorails, Hoists, and Trolleys
- Manitoba Regulation Part 22 – Powered Mobile Equipment General
- Manitoba Code of Practice for the Safe Operation of Powered Lift Trucks
- Manitoba Regulation Part 35 – WHMIS
- Manitoba WHMIS Guideline
- Health Canada - Workplace Hazardous Materials Information System

Cervus Equipment Operator Safety Training ¹³²

Cervus Equipment has 64 company-owned and managed locations in British Columbia, Alberta, Saskatchewan, and Manitoba. Cervus Equipment specializes in acquiring and operating authorized agricultural, industrial and commercial equipment dealerships by facilitating dealership succession. In addition to its business of selling new equipment, selling pre-owned equipment, renting forklifts and offering parts and services, Cervus Equipment also offers safety training courses on a variety of light duty and heavy-duty equipment.

According to their website, Cervus Equipment's Equipment Operator Safety Training courses are compliant with OH&S regulations and meet CSA Standard B335-15 (Safety standard for lift trucks). Each course includes a theory session (face-to-face or online) combined with a hands-on practical training session. Every course provides a complete training material review, theory testing and practical operator evaluations.

Construction safety training courses offered include:

- Forklift Operator Safety Training (*1 day*)
- Aerial Work Platform Operator Safety Training (*1 day*)
- Crane and Rigging
- Fall Protection (*6 hours*)

¹³² <http://forklifts.cervusequipment.com/forklift-training/>

- Skid Steer Operator (*1 day*)
- Telehandler Operator Safety Training (*1 day*)

All courses listed above include both theory and practical components. For Forklift Operator Safety Training and Aerial Work Platform Operator Safety Training, the theory portion may be done through online training. When taking the online training, the hands-on practical training and evaluation session are still required.¹³³ The company also provides a diploma and operator wallet card to each participant who successfully completes the Operator Safety Training course.

*Levitt Safety*¹³⁴

Although Levitt Safety has existed since 1935, Levitt Training & Consulting was conceived and launched in 2005. Levitt Safety offers services and products in 12 different areas, training being one of the services offered. The company has branches across Canada.¹³⁵

Construction safety training courses offered are listed below.

Supervisor courses:

- Supervisor Occupational Health and Safety Training (*8 hours*)
- Incident Investigation & Reporting (*1 day*)
- Manager Occupational Health and Safety (*8 hours*)

Worker courses:

- Arc Flash Awareness (*1/2 day, theory only*)
- Confined Space
 - In-class with practical entry/exit (*2 days*)
 - In-class with practical component (*1 day*)
 - Awareness (*1/2 day, theory only*)
- Confined Space / Fall Protection / Gas Detection (*1.5 days*)
- Fall Protection
 - Fall Protection Competent Inspector (*4 hours*)
 - Fall Protection Safety Training (Manitoba) (*4 hours*)
 - Fall Protection Competent Trainer 3 Day Course (*3 days*)
 - Competent Inspector Fall Protection Equipment Training (*4 hours*)
 - Fall Protection (In-class & Practical Instruction) (*1 day*)
 - Fall Protection Awareness (in-class) (*1/2 day*)
- Electrical Safety (*1/2 day, theory only*)
- Lockout Training (*1/2 day, theory only*)
- Spill Response (*1 day*)
- WHMIS (*1/2 day*)

¹³³ <http://shop.csa.ca/en/canada/lift-trucks/b335-15/inv/27020882015>

¹³⁴ <http://www.levitt-safety.com/tc/>

¹³⁵ <http://www.levitt-safety.com/company/company-history/>

Employers receive a record of training. Employees who take the training receive a Certificate of Attendance, a Certificate of Achievement, a Diploma and wallet-sized Certificate, or a Certificate of Competency, depending on the course. It is unclear what the differences are between the different certificates, but a certificate of attendance generally seems to be issued for shorter, theory-only courses.¹³⁶ Levitt Safety also offers online safety training courses through SafetyNET.

Winnipeg Safety Training Services¹³⁷

The company was established in 2009 to provide occupational safety and health training in Manitoba. Construction safety training courses offered include:

- Front End Loader Training
- Overhead Crane Training
- WHMIS
- Transportation of Dangerous Goods
- Lockout Tagout
- Confined Space
- Fall Protection

All courses are offered at the client company's site/facility.

Ronin Safety and Rescue¹³⁸

Ronin Safety & Rescue manages the safety and rescue components of a project. The company offers rescue standby and OHS consulting in addition to training courses. With offices in British Columbia and Ontario, Ronin Safety and Rescue offers its services across Canada and internationally.¹³⁹ The company provides safety training to clients at their training facilities as well as at clients' location.

Construction safety training courses offered include:

- Confined Space
 - Confined Space Awareness, Entry and Standby Training (1 day)
 - Confined Space Training for Supervisors (1/2 day)
 - Confined Space Training for Industry - Non IDLH¹⁴⁰ (2 days)
 - Confined Space Rescue Training for Industry (IDLH) (4 days)
 - Confined Space Rescue Technician Training (5 days)
- Fall Protection / Controlled Descent
 - Fall Protection Training (1 day)

¹³⁶

<https://www.bistrainer.com/index.cfm?action=store.home&category=74&CFID=29831075&CFTOKEN=43131002>

¹³⁷ <http://www.winnipegssafetytraining.com/>

¹³⁸ <http://www.roninrescue.com/safety-training/confined-space-rescue-training/#>

¹³⁹ <http://www.roninrescue.com/safety-training/fall-protection-training/>

¹⁴⁰ IDLH = Immediately dangerous to life and health

- Fall Protection for Supervisors (*1/2 day*)
- Controlled Descent / Bosun Chair Training (*1 day*)
- Hazmat Awareness Training (*1 day*)

All courses include both classroom and practical exercises. Some courses comply with existing training standards. For example, the Hazmat Awareness Training course meets the training requirements for National Fire Protection Agency (NFPA) 472 Hazardous Materials Awareness Level.

DOMCOR Health, Safety & Security Inc.¹⁴¹

Domcor was founded in 1999 and since then has grown from 1 employee to 500. Domcor provides health and safety services, security services, and training, including safety training. Domcor is a Canadian company with offices in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, and Newfoundland and Labrador.

Construction safety training courses offered include:

- First Aid
 - Emergency First Aid
 - Standard First Aid
 - OFA Level II and III
 - CPR Level A, B and C
 - AED (Automated External Defibrillator)
 - H2S Alive (*1 day*)
- Confined Space
- WHMIS

Both the H2S Alive and Confined Space courses include practical components.

Hertz Equipment Rental¹⁴²

Hertz Equipment Rental is primarily a full-service equipment rentals firm. Hertz Equipment Rental has been renting equipment for more than 50 years and has approximately 270 locations primarily in the United States and Canada. In addition to equipment rentals and used equipment sales, the company also provides operator safety training courses to clients.¹⁴³

Hertz Equipment Rental's safety training includes both theory-based and practical instruction, as well as evaluation of the operator's performance in the workplace in collaboration with the client. The courses review the requirements of the relevant standards such as provincial regulations, OSHA standards and CSA standards.

¹⁴¹ <http://www.domcor.ca/training/>

¹⁴² <https://www.hertzequiprentals.com/content/herc/ca/programs/safety-training.html>

¹⁴³ <https://www.hertzequiprentals.com/content/herc/ca/need-help/company-overview.html>

Construction safety training courses offered include:¹⁴⁴

- Aerial (Scissor, Boom, Manually Propelled Aerial Work Platform)
- Forklift Class I, IV, V
- Variable Reach & Straight Mast Forklift Class VII
- Skid Steer
- Compact Excavator (mini-Excavator)
- OSSA Certified Elevated Work Platforms
- OSSA Certified Fall Protection
- Ontario Working at Heights (Fall Protection)

The company provides a wallet card and certificate upon successful completion of its courses. The company has been certified by OSSA to deliver Elevated Work Platforms based on the OSSA standard.¹⁴⁵

Corporate Health Works Workplace Safety Specialists¹⁴⁶

Corporate Health Works is a Canadian company based in Winnipeg that was established in 1987. The company has an international and national client base of small, mid-sized and large companies. The company offers workplace safety and health training to meet the requirements of the Manitoba Workplace Safety and Health Act and Regulation. In addition to training, Corporate Health Works offers compliance consulting, services related to hearing conservation, and general health and safety consulting services.

The company provides construction safety training courses in the following areas:¹⁴⁷

Supervisor/Train the trainer courses:

- Accident Investigation (1/2 day–1 day)
- WHMIS (2 days, 16 hours, theory only)
- Supervisor Safety Training

Worker courses:

- WHMIS (1/2 day–1day, theory only)
- Transportation of Dangerous Goods
- Safe Operation of Powered Lift Trucks (1 day; theory-based instruction with practical evaluation)
- Safe Operation of Overhead Cranes & Hoists (1 days, theory-based instruction with practical evaluation)

¹⁴⁴Telephone Interview to confirm they offer training at their Winnipeg location on 13th June 2017.

¹⁴⁵ <http://www.ossa-wb.ca/organizations/listing/all/>

¹⁴⁶ <http://www.corporatehealthworks.ca/about.shtml>

¹⁴⁷ http://www.corporatehealthworks.ca/training_main.shtml

*Industrial Health and Safety Solutions*¹⁴⁸

Industrial Health and Safety Solutions is a consulting company based on Oak Bank, Manitoba. The company does not have a website. According to the Workers Compensation Board (WCB) directory, the company offers construction-related safety training courses on:

- Fire Safety
- H2S Alive
- Transportation of Dangerous Goods
- Workplace Hazardous Materials Information System (WHMIS)

*Peter Neufeld Consulting Inc*¹⁴⁹

Based in Winkler, Manitoba, the company offers construction-related safety training courses as described below. Since the company does not have a website, this information was gathered through the Workers Compensation Board (WCB) directory.¹⁵⁰

- Confined Spaced Entry
- Fire Safety
- Personal Protective Equipment
- Respiratory Safety
- Safety Equipment
- Workplace Hazardous Materials Information System (WHMIS)
- Work Site Safety¹⁵¹

*Priority Safety Consulting Inc*¹⁵²

Priority Safety Consulting is a Canadian company based in Winnipeg and serves Manitoba, north-western Ontario and Saskatchewan. The consulting company offers services including policy development, auditing, safety inspections, job hazard analysis, personal and environmental sampling, noise-level surveys and audiometric tests, expert witness services and custom consultation.

The company also provides safety training in the following areas:¹⁵³

- Workplace Hazardous Materials Information System (WHMIS)
- Personal Protective Equipment (PPE)
- Fire Safety
- Confined Space Entry
- Lock-out / Tag out

¹⁴⁸ Workers Compensation Board (WCB) directory:

<https://www.wcb.mb.ca/sites/default/files/DM%20RTW%20Guide.pdf>

¹⁴⁹ <http://winklerchamber.com/business-directory/professional-services/peter-neufeld-consulting-inc>

¹⁵⁰ <https://ca.linkedin.com/in/peter-neufeld-crsp-b017b040>

¹⁵¹ Workers Compensation Board (WCB) directory:

<https://www.wcb.mb.ca/sites/default/files/DM%20RTW%20Guide.pdf>

¹⁵² <http://prioritysafety.ca/programs.php>

¹⁵³ <https://www.bcrsp.ca/>

Priority Safety Consulting Inc.'s services and training are delivered by workers who are certified and registered by the Board of Canadian Registered Safety Professionals, a public interest, not-for-profit association with a membership dedicated to the principles of health and safety as a profession in Canada.¹⁵⁴

SOS Safety Services Inc.¹⁵⁵

SOS Safety Services is a company based in Winnipeg. The company does not have a website. According to the Workers Compensation Board (WCB) directory, the company offers construction-related safety training courses on:

- Confined Space Entry
- Fire Safety
- Workplace Hazardous Materials Information System (WHMIS)
- Personal Protective Equipment (PPE)
- Work Site Safety

Online Training Providers

This section describes several companies that provide safety training online exclusively or companies that deliver face-to-face training out of province but also offer online training. Though the training providers may not be located in Manitoba, workers in Manitoba may be accessing the training as it is online.

Online safety training has both strengths and weaknesses. Offering online training is more cost-effective than face-to-face training and can increase access to training materials for many workers. While the online courses may be useful when covering theory, online safety training courses do not typically attempt a practical component to the course.

Online Learning Enterprises Inc.¹⁵⁶

Online Learning Enterprises Inc., based in Ontario, helps companies develop and manage their workplace safety programs and sells online safety training courses.

Supervisor courses include:

- Supervisor Health & Safety Awareness
- Workplace Inspection Training
- Incident Investigation Training

Worker courses include:

- WHMIS 2015
- WHMIS Refresher
- Fall Protection Training

¹⁵⁴ <https://www.bcrsp.ca/about-us>

¹⁵⁵ Workers Compensation Board (WCB) directory:
<https://www.wcb.mb.ca/sites/default/files/DM%20RTW%20Guide.pdf>

¹⁵⁶ <https://olelearning.com/about-online-learning-enterprises/>
<https://olelearning.com/full-course-list/#ST>

- Aerial Lift
- Transportation of Dangerous Goods
- Confined Space Training
- Ladder Safety Training
- Manual Material Handling Training
- Fire Safety Training
- Forklift Training
- Lockout/Tagout Training
- Arc Flash Hazard Awareness
- Electrical Safety Training
- First Aid Awareness
- Ground Disturbance Training
- Hand Tool Safety Training
- Hoist and Rigging Safety
- Hydrogen Sulphide Training
- Lifting Loads Safety Training
- New Employee Safety Orientation
- Overhead Cranes Training
- Personal Protective Equipment Training
- Respirator Protection Training
- Safe Operation of Skid Steers
- Safe Operation of Telehandlers Training
- Scaffold Safety Training
- Slips, Trips and Falls
- Struck-by Hazard Training
- Work Area Protection Training

1 Life Workplace Safety Solutions¹⁵⁷

This Winnipeg company is a group of safety professionals and software programmers who specialize in Safety Management System evaluation, design, implementation and training. The company provides the following online construction-related safety training courses:

- Fall Protection Awareness/Refresher Training
- Hazard Awareness
- Ladder Safety Awareness/Refresher Training
- Lockout Awareness/Refresher Training
- WHMIS 2015: Globally Harmonized System (GHS)
- Working around Powered Mobile Equipment (PME)

¹⁵⁷ <https://1lifewss.com/more/about-us/>
<https://1lifewss.com/software/mysafetytraining/>

*Act First Safety*¹⁵⁸

Act First Safety provides health and safety training both in-person in the Greater Toronto Area and online.

Supervisor online courses include:

- Workplace Inspections
- Incident Investigation
- Supervisor Safety Awareness

Worker online courses include:

- WHMIS
- Fall Protection/Working at Heights
- Lift Truck/Forklift
- Aerial Lift
- Lockout/Tagout
- Confined Space
- H2S
- Manual Material Handling

*Construction Companies and Employers*¹⁵⁹

The research team conducted interviews with a number of employers in the construction industry, including Wescan Group of Companies, Bockstael, FWS Group of Companies, Gypsum Drywall Interiors Ltd., and Parkwest Projects Ltd. Different employers take different approaches to safety training; however, there were many similarities in what employers told the research team about safety training in their organizations.

Typically, construction companies require workers to take safety training before starting work on a worksite and may also periodically require workers to retake training they have already taken. Companies establish their own levels of required competency and determine what criteria the training must meet in order for the worker to achieve competency. These criteria often include course duration and course content. Most companies offer internal safety training and send workers for external safety training offered by third-party providers or have the third party provider train onsite.

For internal safety training, the instructor may be, for example, a full-time trainer, an experienced National Construction Safety Officer (NCSO™), a health and safety officer, a safety manager, or a site superintendent or supervisor. Internal training covers new-hire orientations and generally addresses work-site specific topics. If the company has qualified training staff, their internal training may also be more specialized, for example on topics such as fall protection or confined spaces. Employers note the importance of "just-in-time training" and that internal training is often more convenient to address immediate training needs.

¹⁵⁸ <http://actfirstsafety.ca/about/>
<http://actfirstsafety.ca/training/elearning-online-training/>

¹⁵⁹ Interviews with Employers, June 13, June 16, July 10, August 1, August 23, 2017

In choosing third-party training providers, employers differ in how discriminating they are. Several employers said that training must be obtained from training providers that meet the company's approval and that the company is very careful about choosing training providers. The Construction Safety Association of Manitoba (CSAM) was mentioned by many employers as a reliable training provider. One employer commented that instructors who provide safety training are not necessarily construction workers and do not always have the practical knowledge that comes from experience and highlighted this as a weakness. Some employers also have their workers complete some training online, for example Workplace Hazardous Materials Information System (WHMIS) training.

Employers require safety training on a wide range of topics. The most frequently mentioned topics were working at heights/fall protection, confined spaces and WHMIS, followed by first aid, aerial lift, material handling and musculoskeletal injury prevention. Although most employers mentioned confined space, several also noted that many construction workers rarely see or actually have to work in a confined space. Other training topics mentioned include: cranes, lifting, rigging, lock out/tag out, skid steer, telehandler, forklift, health and safety orientation, swing stage, scaffold, and competency on tools. Employers also offer training on job-specific topics as well as safe work procedures, legislation, and critical work tasks relevant to the workers' trade.

Given worker mobility and an often transient workforce, the issue of the transferability of workers' safety training is an important one. Many employers will ask new hires for all of their training records. Some employers will accept training only from company-approved providers while others will accept any training regardless of who the provider was as long as the worker has a valid certificate. One employer explained that their policy is to conduct a practical competency evaluation for all new hires, even if they have training certificates from company-approved providers. Training is not always transferable because the worker's previous employer "owns" the training and does not let the worker take their certificate with them.

Employers use different systems for tracking workers' training such as employee cards with QR codes linked to a database with all training records, an excel spreadsheet, or tracking software. One employer noted that wallet cards issued by training providers are not helpful as workers typically do not keep track of their cards. Unionized workers may have a single card issued by the union that calls up all of their training.

At Manitoba Hydro, for example, contractors and sub-contractors are responsible for worker safety training and must submit training records to Manitoba Hydro. Manitoba Hydro audits and supervises to make sure that contractors are doing everything reasonable to ensure worker safety. Manitoba Hydro also provides on-boarding training and orientation to the project. Manitoba Hydro requires COR™ or SECOR™ as a condition of their contracts.

Section 7: Appendices

Appendix A: Survey Questions

PART 1

1. Which of the following best describes the organization for which you're employed in relation to the commercial construction industry?
 - ☐ Union
 - ☐ Association
 - ☐ Private training provider
 - ☐ College or private vocational institute (PVI) including Union-based PVIs
 - ☐ Construction company including general contractors and subtrades (e.g. electrical, plumbing, etc.)
 - ☐ Governmental agency, department or crown corporation
 - ☐ Non-profit/Non-governmental agency
 - ☐ Other (please specify) <text entry field>
 - ☐ I am not employed in the commercial construction industry, either directly or indirectly.
2. Which one of the following regions best describes your primary region of work?
 - ☐ Winnipeg
 - ☐ Northern Manitoba
 - ☐ Southern Manitoba
 - ☐ Eastern Manitoba
 - ☐ Western Manitoba
 - ☐ I do not work in Manitoba.
3. Where is your organization primarily located?
 - ☐ Winnipeg
 - ☐ Northern Manitoba
 - ☐ Southern Manitoba
 - ☐ Eastern Manitoba
 - ☐ Western Manitoba
 - ☐ Other, please specify <text entry field>
4. What is the size of your organization's workforce?
 - ☐ 1-10 people
 - ☐ 11-50 people
 - ☐ 51-100 people
 - ☐ 101-500 people

- Over 500 people
5. Which of the following most accurately describes your current position?
- Owner
 - Executive director
 - Senior manager
 - Supervisor
 - Safety officer
 - Construction project manager
 - Program manager/coordinator
 - Instructor (e.g. college, private vocational institute)
 - Trainer (e.g. private training provider)
 - Other (please specify) <text entry field>
6. In your current role, do you deliver safety training?
- a. Yes
 - b. No

PART 2

For the purposes of this survey, a standards-based safety training system includes a province-wide, validated training program standard for specified safety training topics and a training provider standard defining requirements for instructor qualifications and delivery methods. The system also includes processes for accreditation, approval, maintenance, and enforcement.

1. How knowledgeable do you consider yourself to be about standards-based training systems?
- Not knowledgeable
 - Somewhat knowledgeable
 - Knowledgeable
 - Very knowledgeable
2. Based on the definition presented earlier in this survey, would you be in favour of the development of a standards-based safety training system in Manitoba?
- Yes
 - No
3. Consider your views of the current approach in Manitoba to safety training in the commercial construction industry and rate your level of agreement with each statement.

	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
The current approach is cost-effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The current approach produces safe workers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The role of the trainer is well-defined and predictable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety training curriculum and methods are clearly defined.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manitoba workers are receiving high-quality safety training.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Certificates of completion are an accurate indicator of a worker's level of knowledge and competency.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Rate your level of agreement with the following statements about a standards-based safety training system compared to the current approach to safety training in Manitoba.

	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
There would be a greater level of oversight.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety training curriculum and delivery would be more consistent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety training methods and curriculum would be more clearly defined.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Training providers' qualifications would meet a defined standard.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Certificates of completion would represent more accurately a worker's level of knowledge and competency.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Safety training would be more cost-effective.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Workplace injuries would be reduced.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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5. If a standards-based safety training system were implemented in Manitoba, rate the significance of each of the following challenges for your organization.

	Not significant	Minimally significant	Moderately significant	Significant	Very significant	Don't know
Cost to comply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time to comply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Need for expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of human resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. What effect do you think a standards-based safety training system would have on your organization?
- Significant negative effect

- Moderate negative effect
 - No effect
 - Moderate positive effect
 - Significant positive effect
7. Should a standards-based safety training system in Manitoba be legislated or voluntary?
- Legislated
 - Voluntary
8. Would you participate in a voluntary standards-based system?
- No
 - Yes
 - Maybe, under certain conditions
<add a text-entry field to explain Maybe option with text: Please describe these conditions.>
9. If the system were legislated, how should it be regulated?
- Regulated by a designated organization that sets the standards
 - Regulated by standards set in legislation
10. Which of these organizations would you consider best suited to have the authority in the development, maintenance, and management of a standards-based system in Manitoba?
- Workplace Safety and Health (WSH)
 - Workers Compensation Board (WCB)
 - SAFE Work Manitoba
 - Construction Safety Association of Manitoba (CSAM)
 - A new third-party organization created for this purpose
 - Other (please specify) <text entry field>
11. Is enforcement an important component of a standards-based safety training system?
- No
 - Unsure
 - Yes
12. If an enforcement authority were to be designated in a standards-based system in Manitoba, which of these organizations would you consider the most appropriate enforcement authority?
- Workplace Safety and Health (WSH)
 - Workers Compensation Board (WCB)
 - SAFE Work Manitoba
 - Construction Safety Association of Manitoba (CSAM)
 - A new third-party organization created for this purpose
 - Other (please specify) <text entry field>

13. If the cost of a standards-based safety training system in Manitoba were to be shared between government and industry, what percentage do you think the government should fund? <insert slider L: 0% (100% industry-funded), C: 50% (50% industry-funded), R: 100% (0% industry-funded), include numerical value box>

14. In a standards-based safety training system in Manitoba, what should be standardized?

- Curriculum
- Training providers
- Both

15. General safety topics such as fall protection and confined spaces should be standardized.

- Agree
- Disagree

16. In the case of site-specific safety training, any individuals delivering the training as well as the training methods used should be required to meet a standard.

- Agree
- Disagree

17. In a standards-based safety training system, the providers of training are typically accredited by the authority having jurisdiction. In a system in Manitoba, who should be accredited?

- Individual instructors
- Training organizations/companies
- Both

18. Should the safety training topics chosen for standardization be based on data from injuries and claims or on industry and stakeholder preferences?

- Based on data on injuries and claims
- Based on industry and stakeholder preferences
- Both

19. Below is a list of potential safety topics for standardization. To what extent do you agree that each topic should be included in a standards-based safety training system in Manitoba?

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Fall protection/Working at heights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confined spaces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Musculoskeletal injury (MSI) prevention	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aerial work platforms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scaffolding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lockout tagout	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WHMIS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

20. If a standards-based safety training system were to be developed for Manitoba, which of the following topics should be given priority for development? Rank the priority level of each topic with 1 being the highest priority and 7 being the lowest priority.

- Confined spaces
- Musculoskeletal injury (MSI) prevention
- Aerial work platforms
- Scaffolding
- Lockout tagout
- WHMIS
- Fall protection/Working at heights

21. Grandfathering is a provision in which an old rule continues to apply to existing situations while a new rule applies to all future cases. Do you think a standards-based safety training system in Manitoba should include a grandfathering provision that would apply to workers who have completed safety training before the implementation of the new standards-based system?

- Yes
- No

22. In a standards-based safety training system, how frequently should workers have to take refresher courses?

- Every year
- Every two years
- Between two and five years
- After five years
- Workers should not have to take refresher courses.
- Other (please specify) <text entry field>

23. How important would having a centralized, online tracking system in Manitoba to store and retrieve records of workers' completion of standardized safety training be to your organization?

- Not important
- Minimally important
- Moderately important
- Important
- Very important

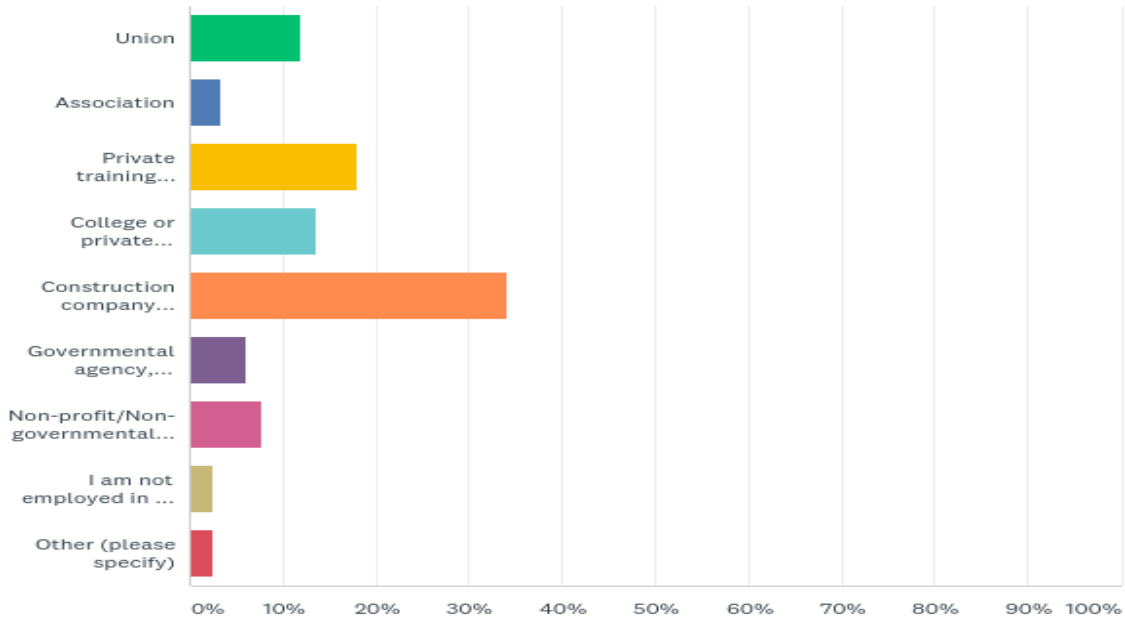
24. How helpful would each of the following resources be to assist your organization in complying with a standards-based training system?

	Not helpful	A little helpful	Moderately helpful	Helpful	Very helpful	Not applicable
Prepared training content	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Third-party support to adjust your current materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Third-party support to meet the requirements for trainer accreditation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Incentives to reduce costs associated with meeting the standards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Implementation support tools such as templates and checklists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

25. Comments? <insert text entry field>

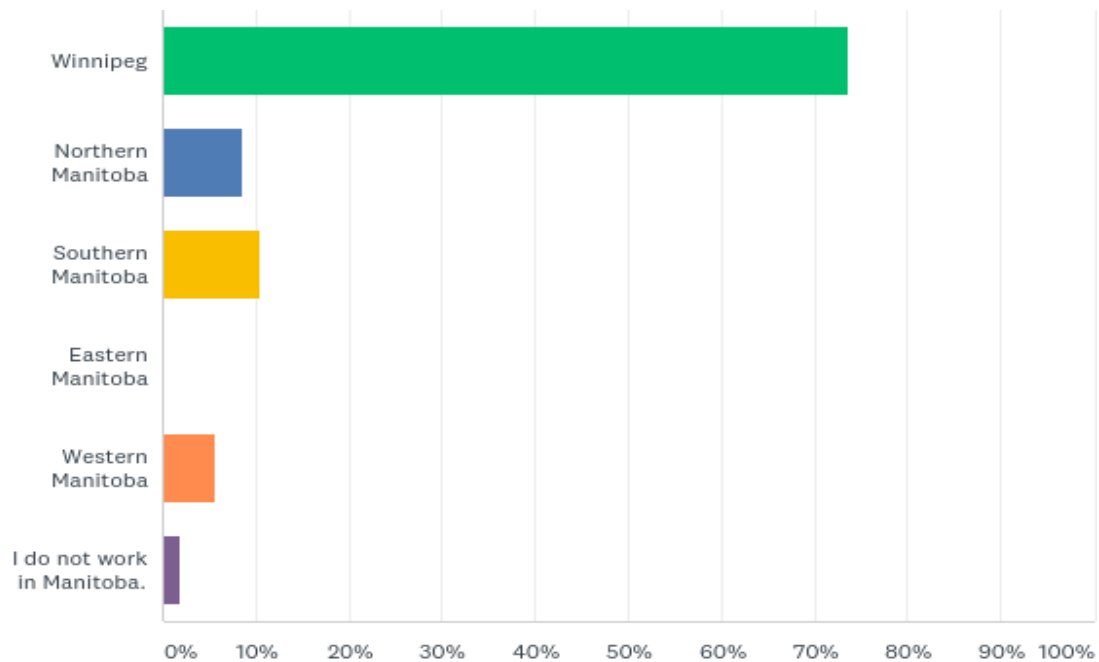
Appendix B: Survey Results (Totals) By Question

Q1: Which of the following best describes the organization for which you're employed in relation to the commercial construction industry?



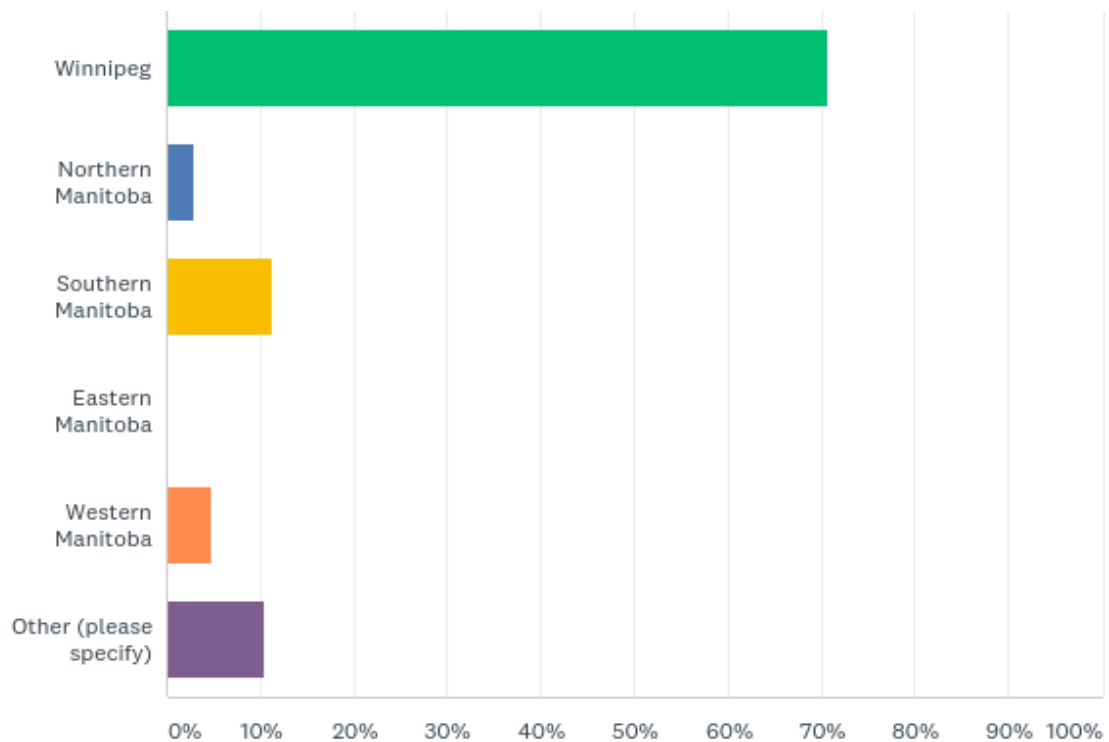
ANSWER CHOICES	RESPONSES	
Union	11.97%	14
Association	3.42%	4
Private training provider	17.95%	21
College or private vocational institute (PVI) including Union-based PVIs	13.68%	16
Construction company including general contractors and subtrades (e.g. electrical, plumbing, etc.)	34.19%	40
Governmental agency, department or crown corporation	5.98%	7
Non-profit/Non-governmental agency	7.69%	9
I am not employed in the commercial construction industry, either directly or indirectly.	2.56%	3
Other (please specify)	2.56%	3
TOTAL		117

Q2: Which one of the following regions best describes your primary region of work?



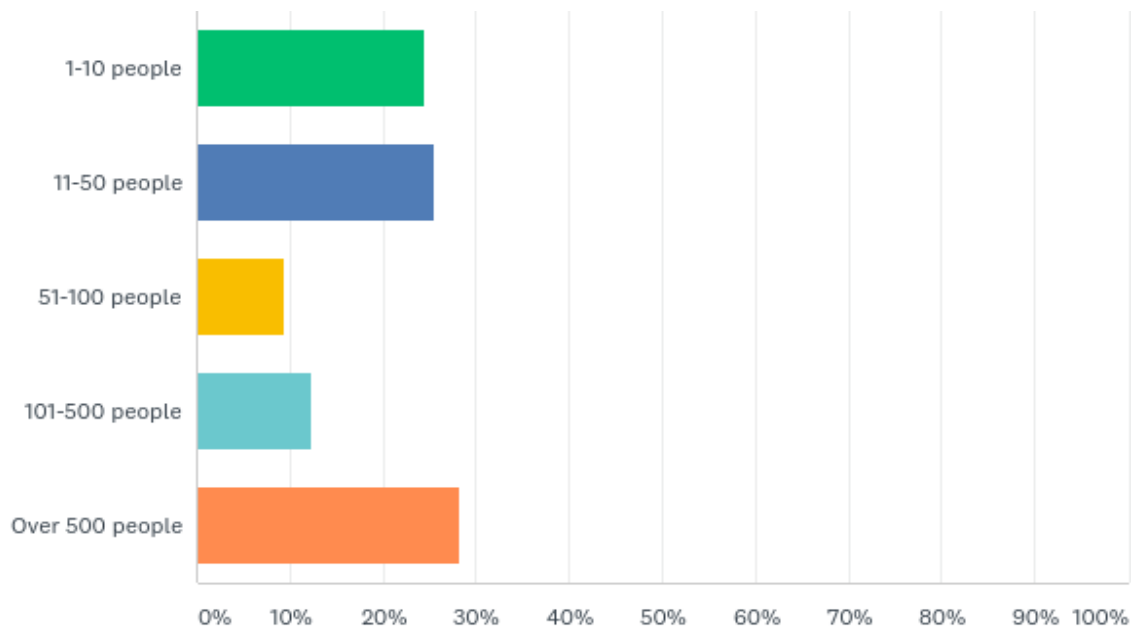
ANSWER CHOICES	RESPONSES	
Winnipeg	73.58%	78
Northern Manitoba	8.49%	9
Southern Manitoba	10.38%	11
Eastern Manitoba	0.00%	0
Western Manitoba	5.66%	6
I do not work in Manitoba.	1.89%	2
TOTAL		106

Q3: Where is your organization primarily located?



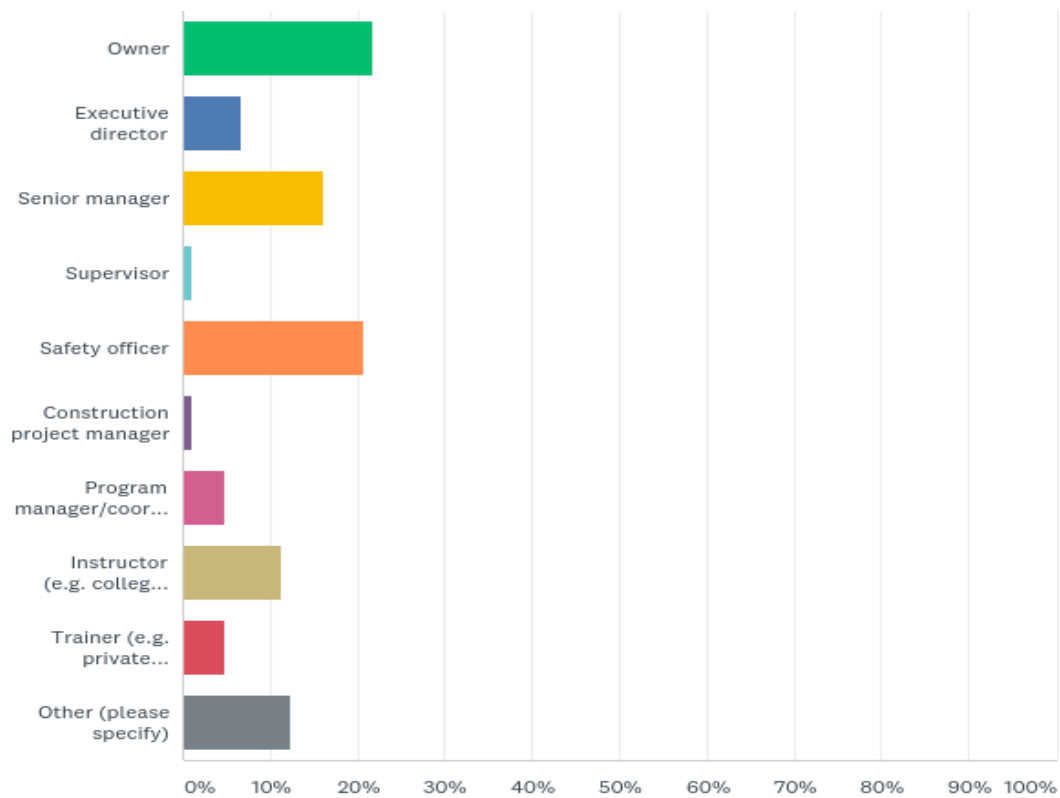
ANSWER CHOICES	RESPONSES	
Winnipeg	70.75%	75
Northern Manitoba	2.83%	3
Southern Manitoba	11.32%	12
Eastern Manitoba	0.00%	0
Western Manitoba	4.72%	5
Other (please specify)	10.38%	11
TOTAL		106

Q4: What is the size of your organization's workforce?



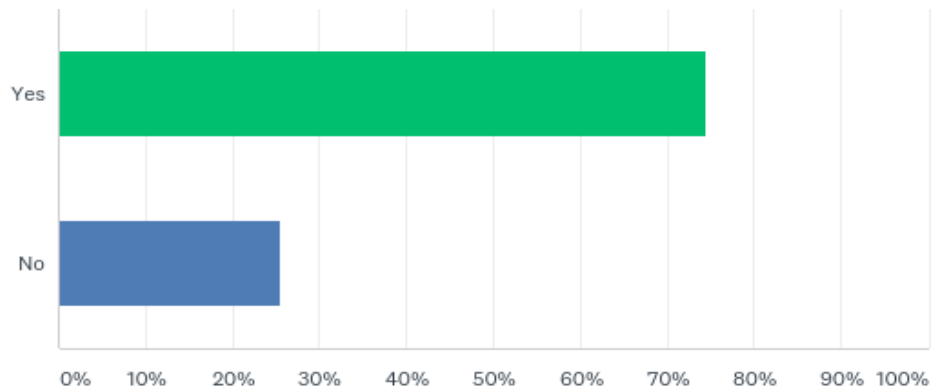
ANSWER CHOICES	RESPONSES	
1-10 people	24.53%	26
11-50 people	25.47%	27
51-100 people	9.43%	10
101-500 people	12.26%	13
Over 500 people	28.30%	30
TOTAL		106

Q5: Which of the following most accurately describes your current position?



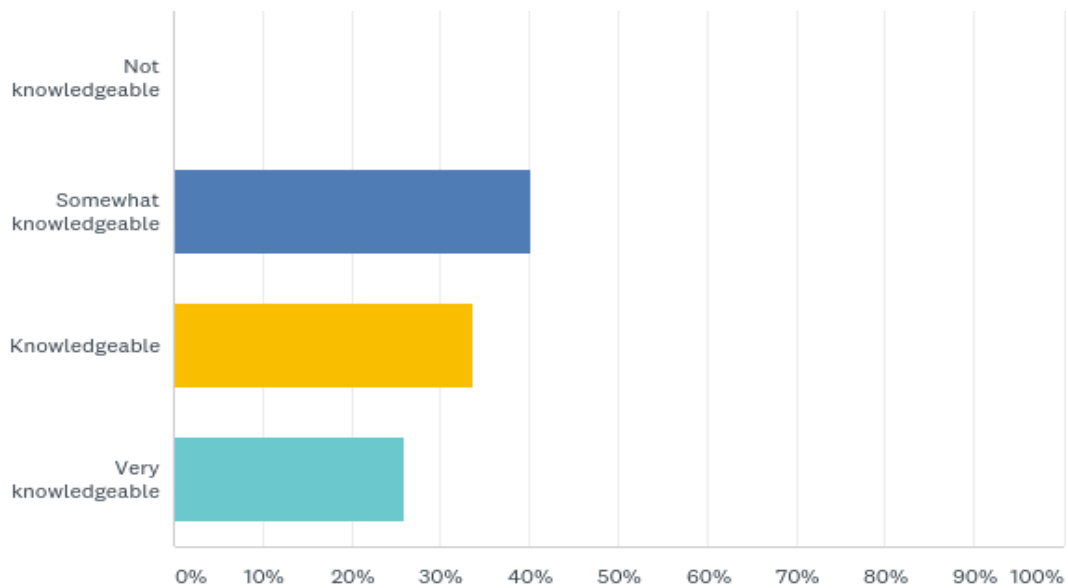
ANSWER CHOICES	RESPONSES	
Owner	21.70%	23
Executive director	6.60%	7
Senior manager	16.04%	17
Supervisor	0.94%	1
Safety officer	20.75%	22
Construction project manager	0.94%	1
Program manager/coordinator	4.72%	5
Instructor (e.g. college, private vocational institute)	11.32%	12
Trainer (e.g. private training provider)	4.72%	5
Other (please specify)	12.26%	13
TOTAL		106

Q6: In your current role, do you deliver safety training?



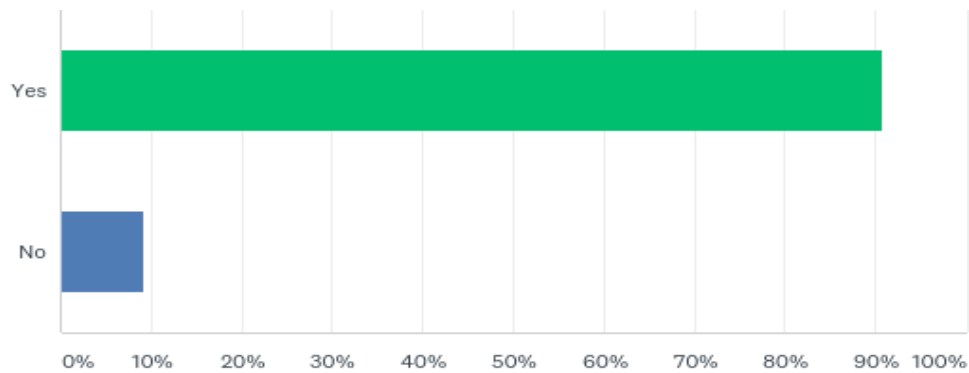
ANSWER CHOICES	RESPONSES	
Yes	74.53%	79
No	25.47%	27
TOTAL		106

Q7: How knowledgeable do you consider yourself to be about standards-based training systems?



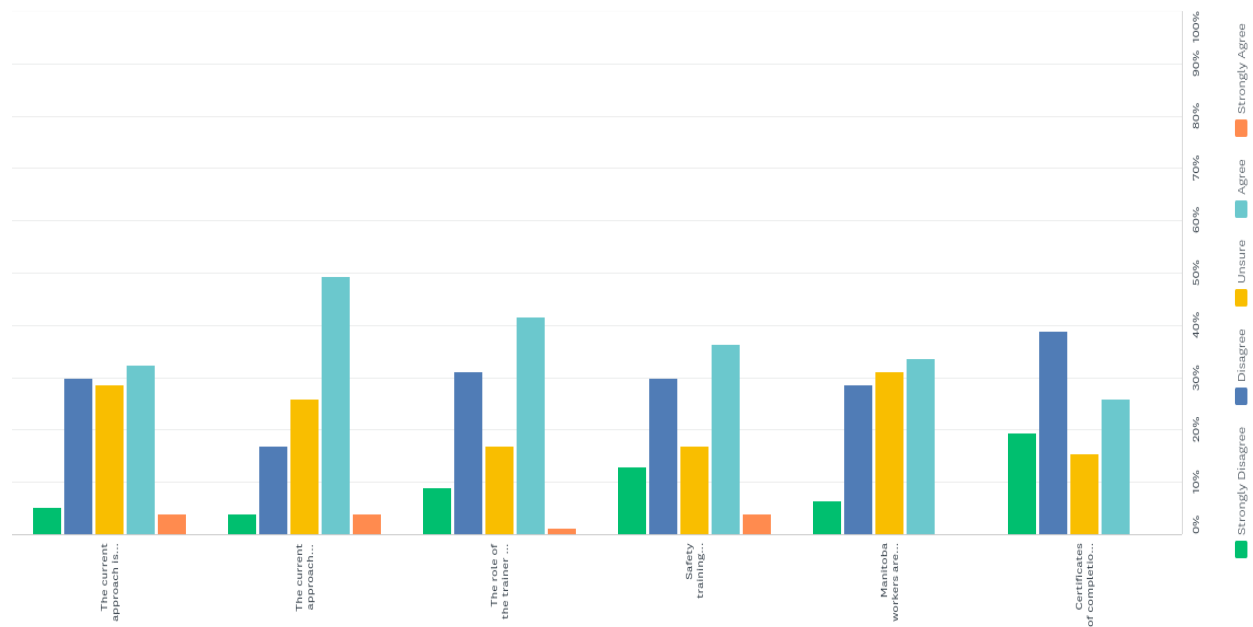
ANSWER CHOICES	RESPONSES	
Not knowledgeable	0.00%	0
Somewhat knowledgeable	40.26%	31
Knowledgeable	33.77%	26
Very knowledgeable	25.97%	20
TOTAL		77

Q8: Based on the definition presented at the top of this page, would you be in favour of the development of a standards-based safety training system in Manitoba?



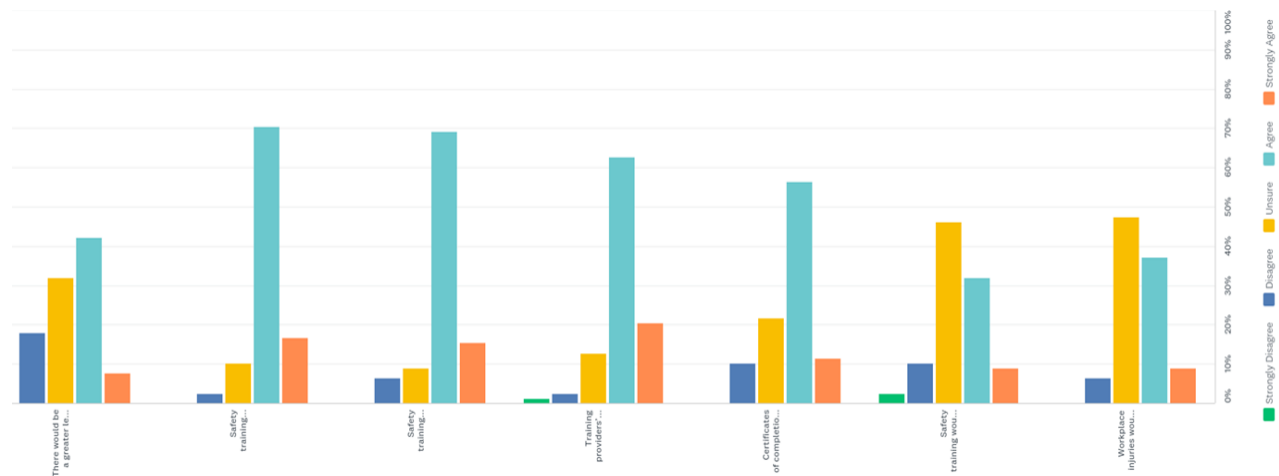
ANSWER CHOICES	RESPONSES	
Yes	90.79%	69
No	9.21%	7
TOTAL		76

Q9: Consider your views of the current approach in Manitoba to safety training in the commercial construction industry and rate your level of agreement with each statement



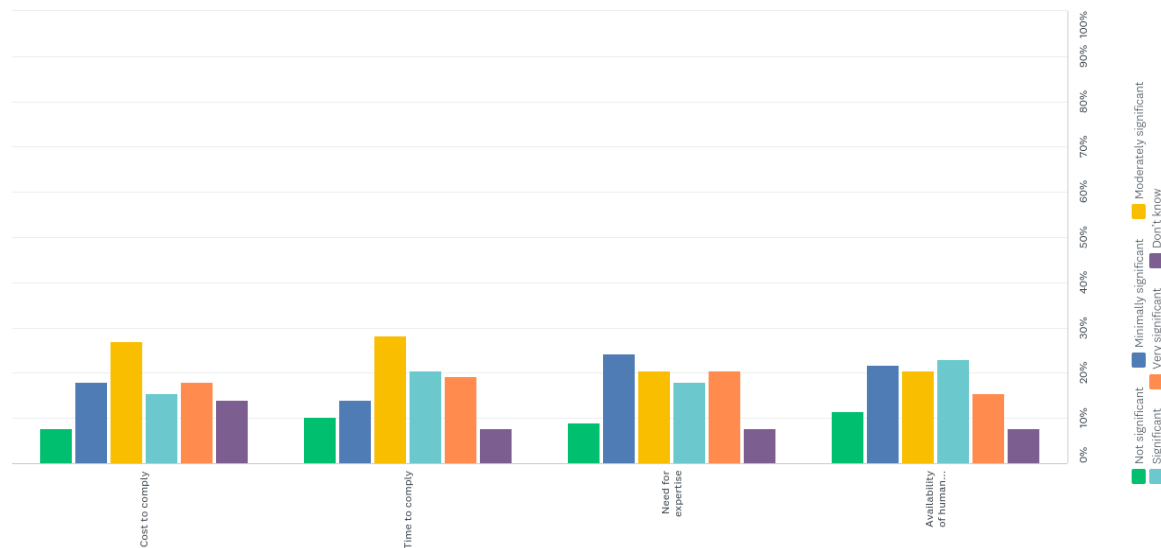
	STRONGLY DISAGREE	DISAGREE	UNSURE	AGREE	STRONGLY AGREE	TOTAL
The current approach is cost-effective.	5.19% 4	29.87% 23	28.57% 22	32.47% 25	3.90% 3	77
The current approach produces safe workers.	3.90% 3	16.88% 13	25.97% 20	49.35% 38	3.90% 3	77
The role of the trainer is well-defined and predictable.	9.09% 7	31.17% 24	16.88% 13	41.56% 32	1.30% 1	77
Safety training curriculum and methods are clearly defined.	12.99% 10	29.87% 23	16.88% 13	36.36% 28	3.90% 3	77
Manitoba workers are receiving high-quality safety training.	6.49% 5	28.57% 22	31.17% 24	33.77% 26	0.00% 0	77
Certificates of completion are an accurate indicator of a worker's level of knowledge and competency.	19.48% 15	38.96% 30	15.58% 12	25.97% 20	0.00% 0	77

Q10: Rate your level of agreement with the following statements about a standards-based safety training system compared to the current approach to safety training in Manitoba.



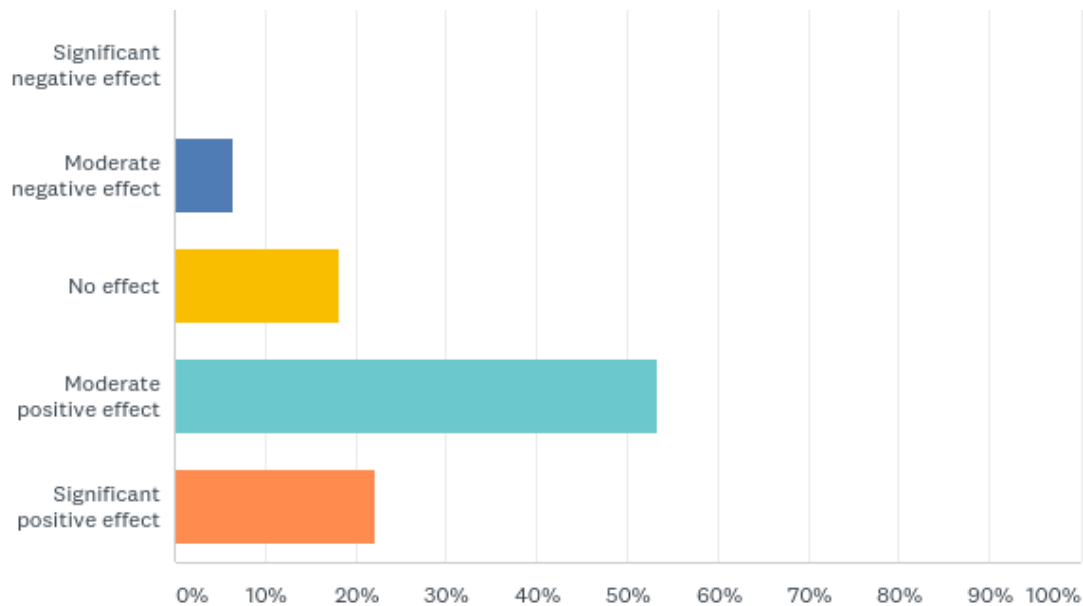
	STRONGLY DISAGREE	DISAGREE	UNSURE	AGREE	STRONGLY AGREE	TOTAL
There would be a greater level of oversight.	0.00% 0	17.95% 14	32.05% 25	42.31% 33	7.69% 6	78
Safety training curriculum and delivery would be more consistent.	0.00% 0	2.56% 2	10.26% 8	70.51% 55	16.67% 13	78
Safety training methods and curriculum would be more clearly defined.	0.00% 0	6.41% 5	8.97% 7	69.23% 54	15.38% 12	78
Training providers' qualifications would meet a defined standard.	1.28% 1	2.56% 2	12.82% 10	62.82% 49	20.51% 16	78
Certificates of completion would represent more accurately a worker's level of knowledge and competency.	0.00% 0	10.26% 8	21.79% 17	56.41% 44	11.54% 9	78
Safety training would be more cost-effective.	2.56% 2	10.26% 8	46.15% 36	32.05% 25	8.97% 7	78
Workplace injuries would be reduced.	0.00% 0	6.41% 5	47.44% 37	37.18% 29	8.97% 7	78

Q11: If a standards-based safety training system were implemented in Manitoba, rate the significance of each of the following challenges for your organization.



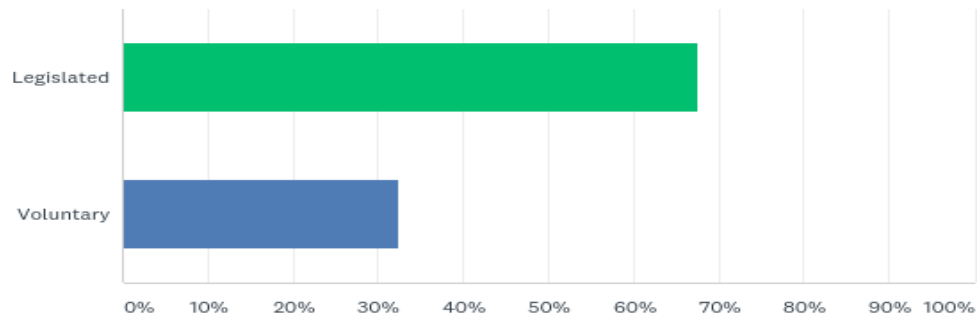
	NOT SIGNIFICANT	MINIMALLY SIGNIFICANT	MODERATELY SIGNIFICANT	SIGNIFICANT	VERY SIGNIFICANT	DON'T KNOW	TOTAL
Cost to comply	7.69% 6	17.95% 14	26.92% 21	15.38% 12	17.95% 14	14.10% 11	78
Time to comply	10.26% 8	14.10% 11	28.21% 22	20.51% 16	19.23% 15	7.69% 6	78
Need for expertise	8.97% 7	24.36% 19	20.51% 16	17.95% 14	20.51% 16	7.69% 6	78
Availability of human resources	11.54% 9	21.79% 17	20.51% 16	23.08% 18	15.38% 12	7.69% 6	78

Q12: What effect do you think a standards-based safety training system would have on your organization?



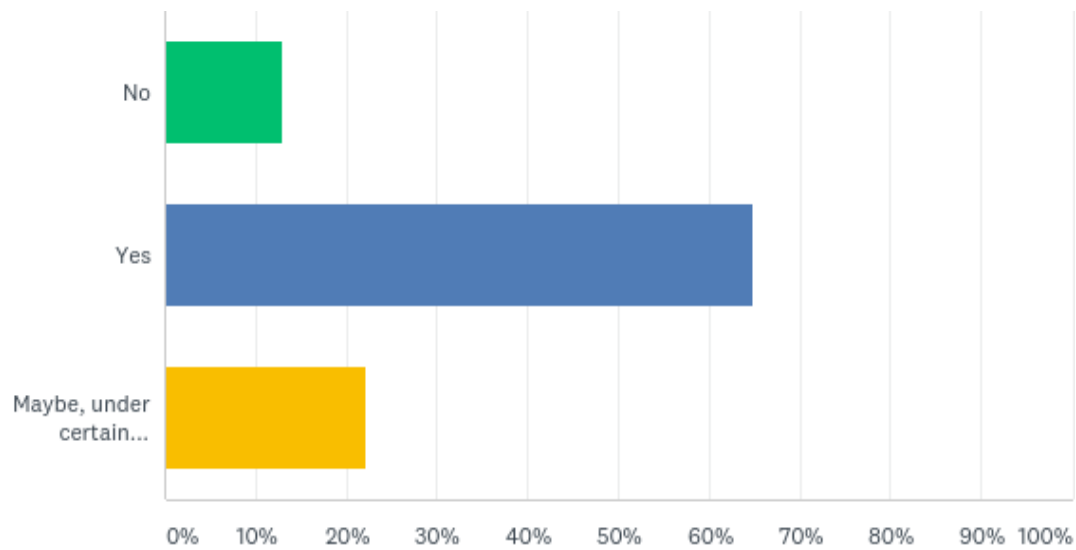
ANSWER CHOICES	RESPONSES	
Significant negative effect	0.00%	0
Moderate negative effect	6.49%	5
No effect	18.18%	14
Moderate positive effect	53.25%	41
Significant positive effect	22.08%	17
TOTAL		77

Q13: Should a standards-based safety training system in Manitoba be legislated or voluntary?



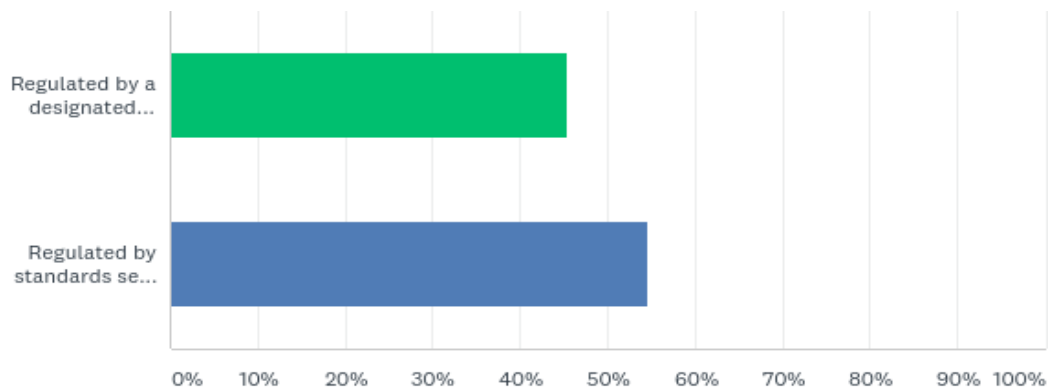
ANSWER CHOICES	RESPONSES	
Legislated	67.53%	52
Voluntary	32.47%	25
TOTAL		77

Q14: Would you participate in a voluntary standards-based system?



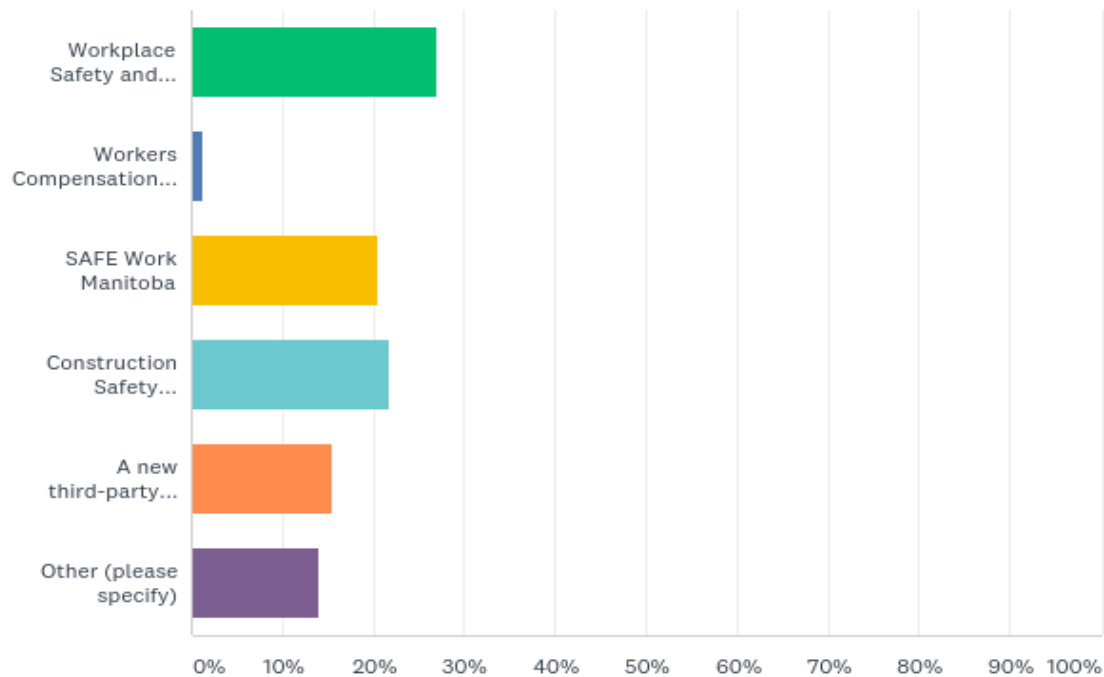
ANSWER CHOICES	RESPONSES	
No	12.99%	10
Yes	64.94%	50
Maybe, under certain conditions (please describe these conditions)	22.08%	17
TOTAL		77

15: If the system were legislated, how should it be regulated?



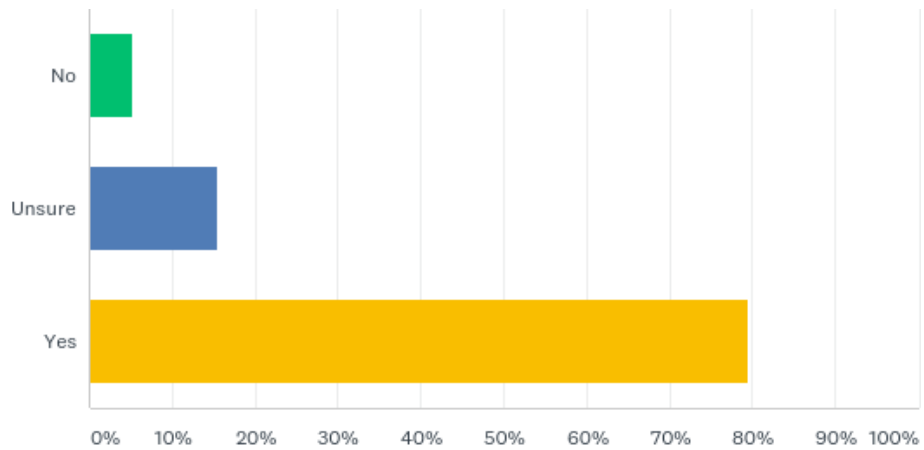
ANSWER CHOICES	RESPONSES	
Regulated by a designated organization that sets the standards	45.45%	35
Regulated by standards set in legislation	54.55%	42
TOTAL		77

Q16: Which of these organizations would you consider best suited to have the authority in the development, maintenance, and management of a standards-based system in Manitoba?



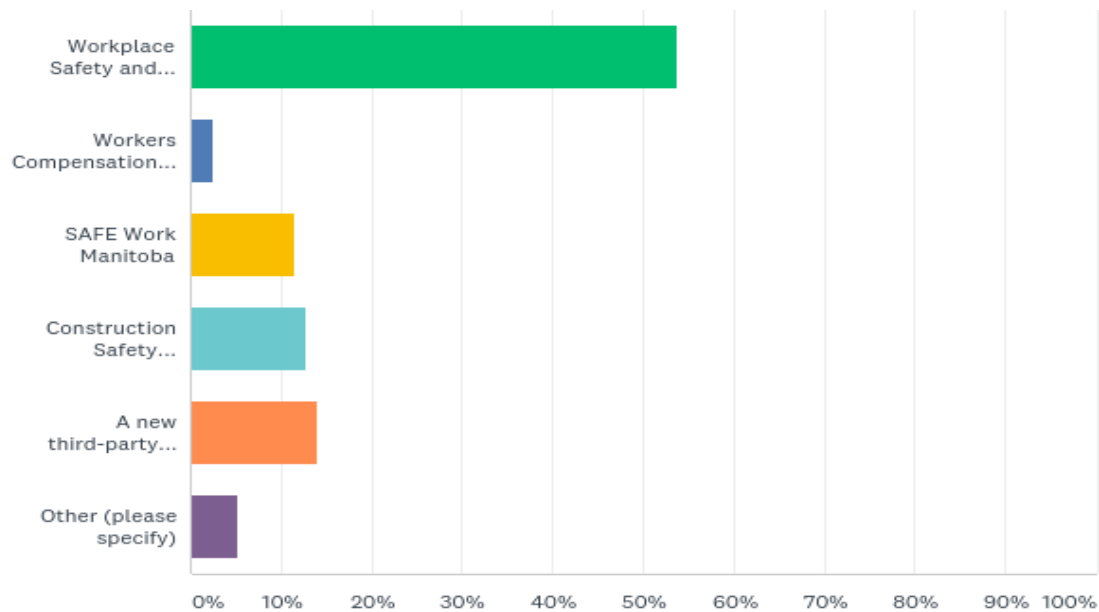
ANSWER CHOICES	RESPONSES	
Workplace Safety and Health (WSH)	26.92%	21
Workers Compensation Board (WCB)	1.28%	1
SAFE Work Manitoba	20.51%	16
Construction Safety Association of Manitoba (CSAM)	21.79%	17
A new third-party organization created for this purpose	15.38%	12
Other (please specify)	14.10%	11
TOTAL		78

Q17: Is enforcement an important component of a standards-based safety training system?



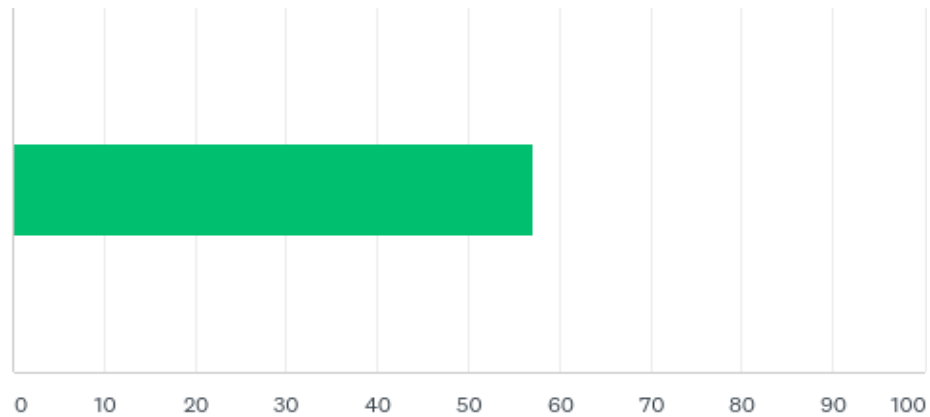
ANSWER CHOICES	RESPONSES	
No	5.13%	4
Unsure	15.38%	12
Yes	79.49%	62
TOTAL		78

Q18: If an enforcement authority were to be designated in a standards-based system in Manitoba, which of these organizations would you consider the most appropriate enforcement authority?



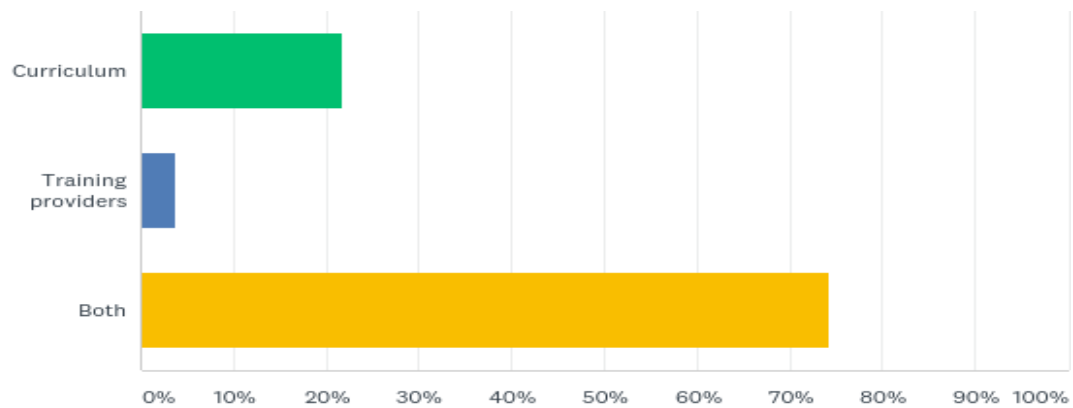
ANSWER CHOICES	RESPONSES	
Workplace Safety and Health (WSH)	53.85%	42
Workers Compensation Board (WCB)	2.56%	2
SAFE Work Manitoba	11.54%	9
Construction Safety Association of Manitoba (CSAM)	12.82%	10
A new third-party organization created for this purpose	14.10%	11
Other (please specify)	5.13%	4
TOTAL		78

Q19: If the cost of a standards-based safety training system in Manitoba were to be shared between government and industry, what percentage do you think the government should fund?



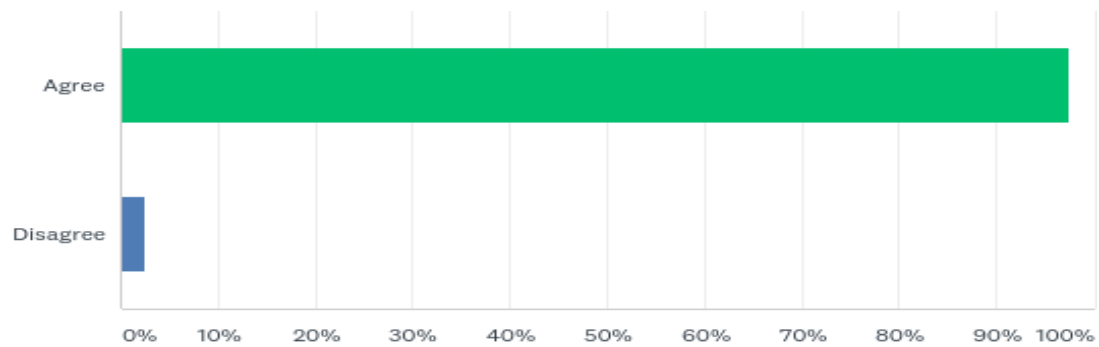
ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
	57	4,391	77
Total Respondents: 77			

Q20: In a standards-based safety training system in Manitoba, what should be standardized?



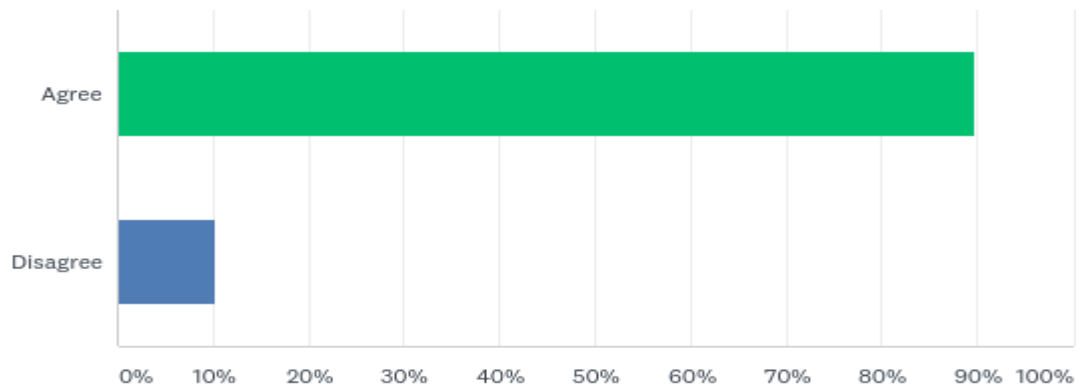
ANSWER CHOICES	RESPONSES	
Curriculum	21.79%	17
Training providers	3.85%	3
Both	74.36%	58
TOTAL		78

Q21: General safety topics such as fall protection and confined spaces should be standardized.



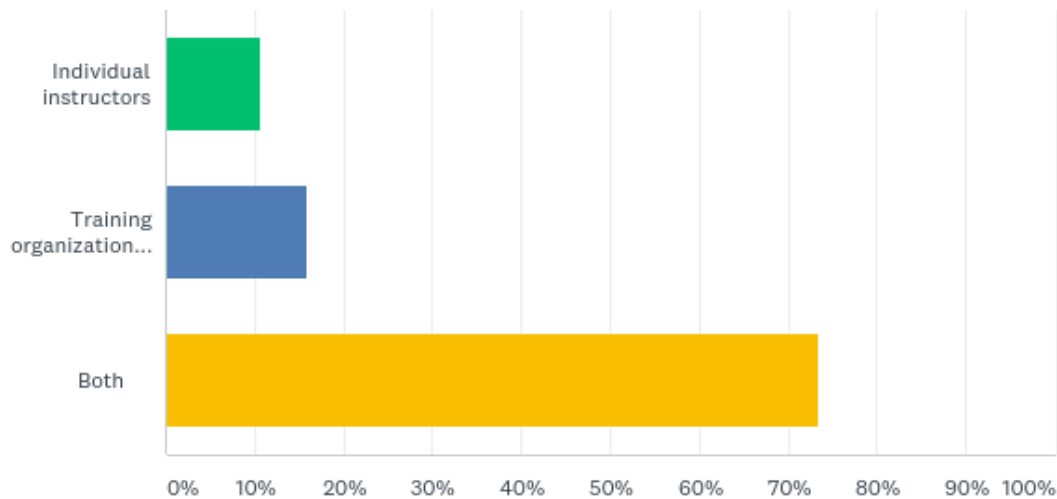
ANSWER CHOICES	RESPONSES	
Agree	97.44%	76
Disagree	2.56%	2
TOTAL		78

Q22: In the case of site-specific safety training, any individuals delivering the training as well as the training methods used should be required to meet a standard.



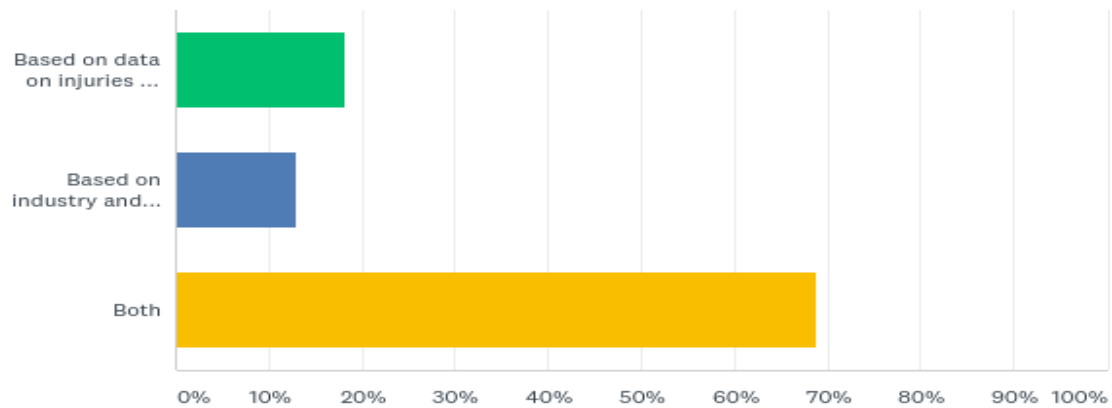
ANSWER CHOICES	RESPONSES	
Agree	89.74%	70
Disagree	10.26%	8
TOTAL		78

Q23: In a standards-based safety training system, the providers of training are typically accredited by the authority having jurisdiction. In a system in Manitoba, who should be accredited?



ANSWER CHOICES	RESPONSES	
Individual instructors	10.67%	8
Training organizations/companies	16.00%	12
Both	73.33%	55
TOTAL		75

Q24: Should the safety training topics chosen for standardization be based on data from injuries and claims or on industry and stakeholder preferences?

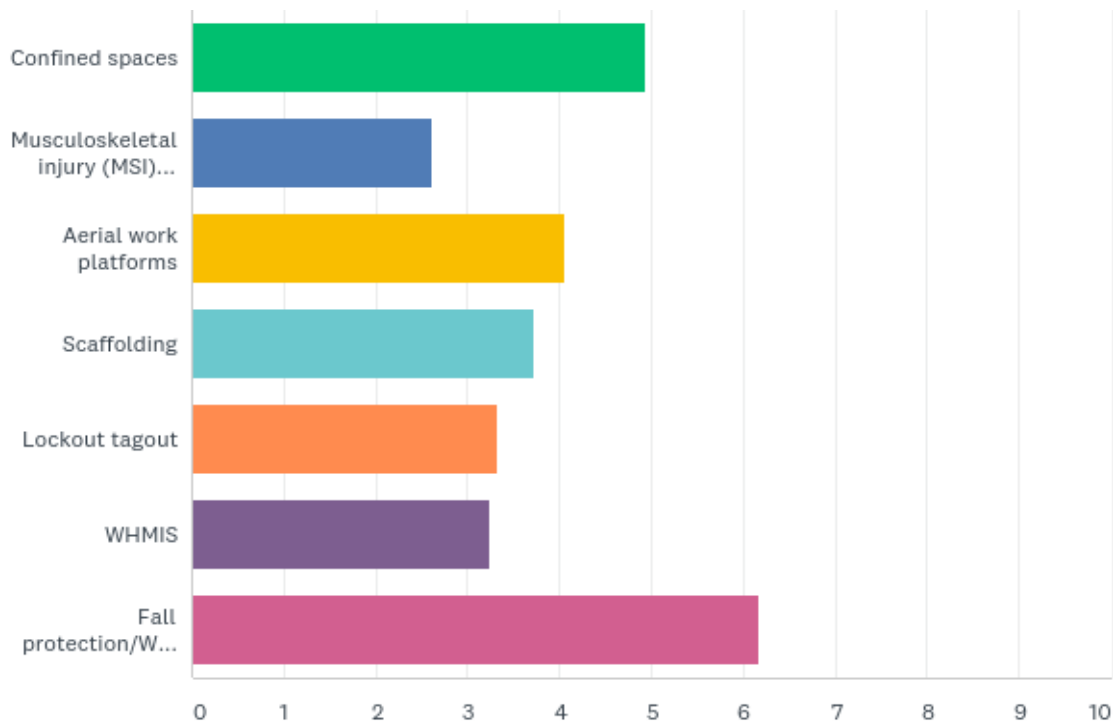


ANSWER CHOICES	RESPONSES	
Based on data on injuries and claims	18.18%	14
Based on industry and stakeholder preferences	12.99%	10
Both	68.83%	53
TOTAL		77

Q25: Below is a list of potential safety topics for standardization. To what extent do you agree that each topic should be included in a standards-based safety training system in Manitoba?

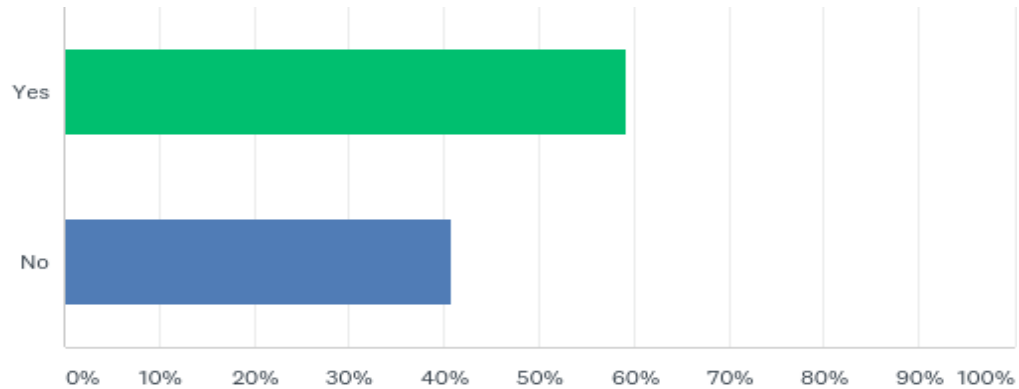


Q26: If a standards-based safety training system were to be developed for Manitoba, which of the following topics should be given priority for development? Rank the priority level of each topic with 1 being the highest priority and 7 being the lowest priority.



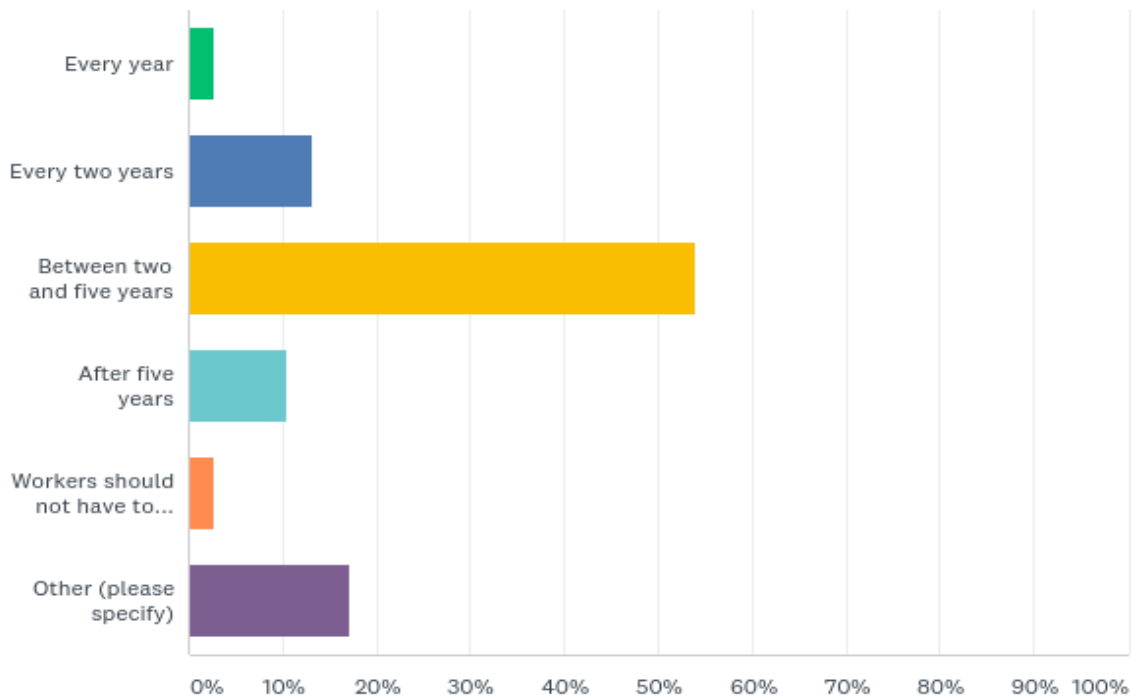
	1	2	3	4	5	6	7	TOTAL	SCORE
Confined spaces	16.18% 11	30.88% 21	13.24% 9	19.12% 13	11.76% 8	7.35% 5	1.47% 1	68	4.93
Musculoskeletal injury (MSI) prevention	5.80% 4	4.35% 3	7.25% 5	2.90% 2	20.29% 14	26.09% 18	33.33% 23	69	2.61
Aerial work platforms	1.45% 1	26.09% 18	15.94% 11	18.84% 13	15.94% 11	14.49% 10	7.25% 5	69	4.06
Scaffolding	1.41% 1	8.45% 6	22.54% 16	28.17% 20	16.90% 12	14.08% 10	8.45% 6	71	3.73
Lockout tagout	1.41% 1	8.45% 6	19.72% 14	16.90% 12	18.31% 13	15.49% 11	19.72% 14	71	3.32
WHMIS	7.04% 5	5.63% 4	18.31% 13	11.27% 8	14.08% 10	19.72% 14	23.94% 17	71	3.25
Fall protection/Working at heights	63.51% 47	17.57% 13	4.05% 3	6.76% 5	4.05% 3	4.05% 3	0.00% 0	74	6.18

Q27: Grandfathering is a provision in which an old rule continues to apply to existing situations while a new rule applies to all future cases. Do you think a standards-based safety training system in Manitoba should include a grandfathering provision that would apply to workers who have completed safety training before the implementation of the new standards-based system?



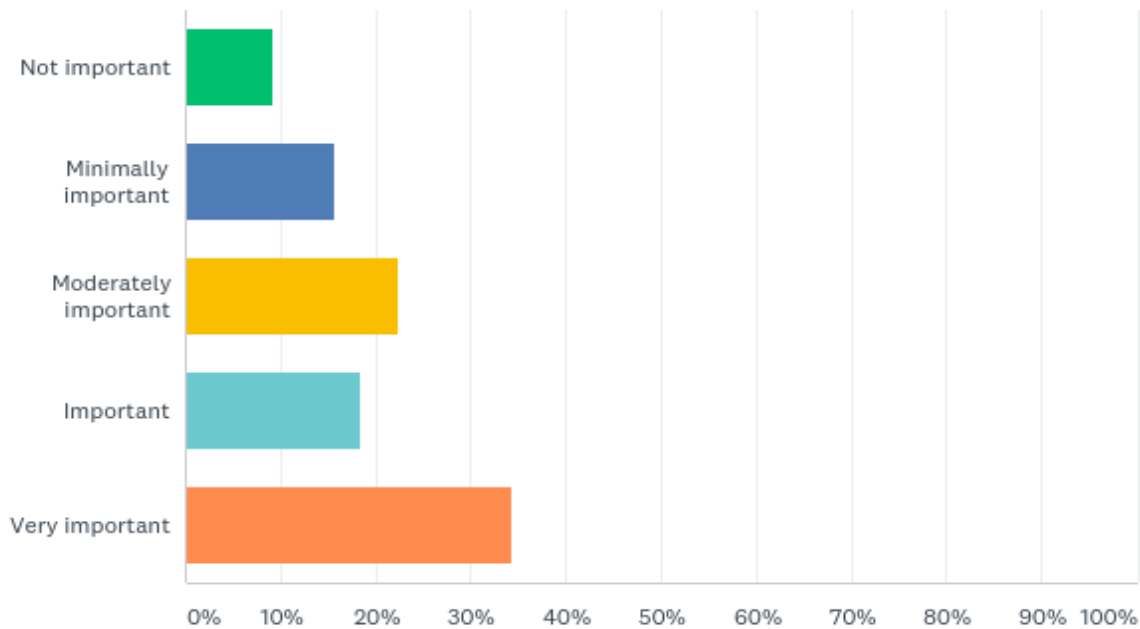
ANSWER CHOICES	RESPONSES	
Yes	59.21%	45
No	40.79%	31
TOTAL		76

Q28: In a standards-based safety training system, how frequently should workers have to take refresher courses?



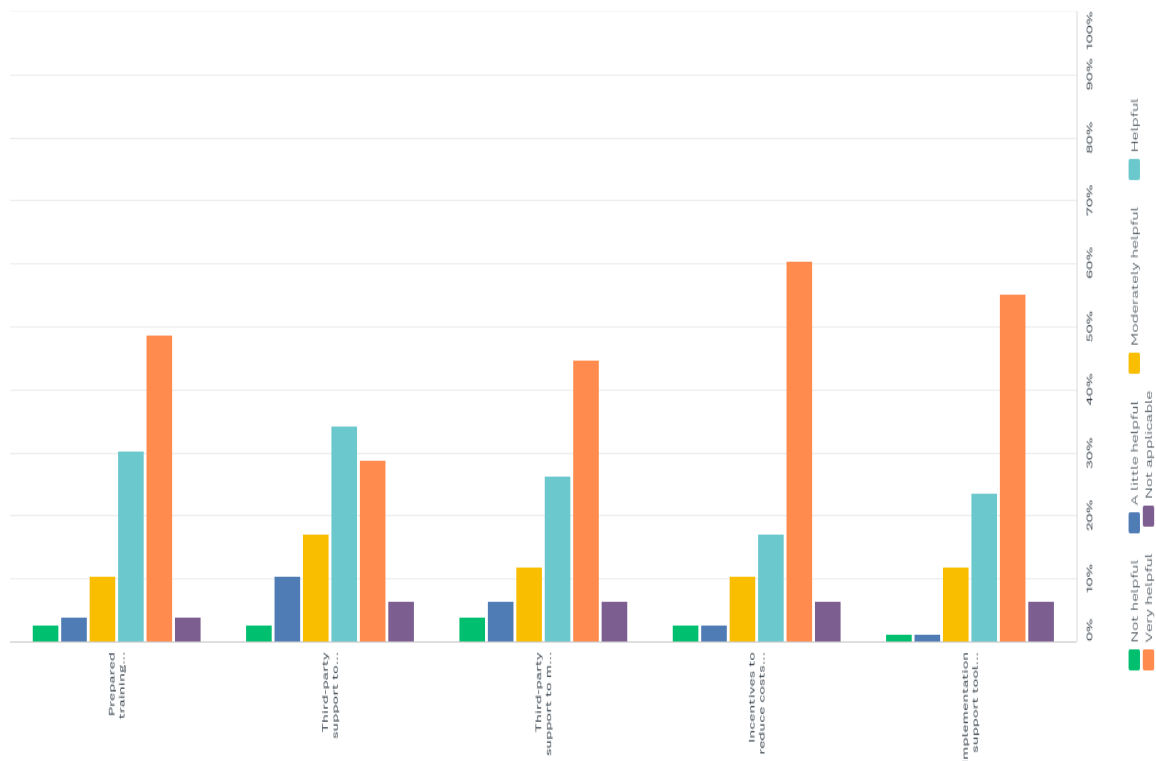
ANSWER CHOICES	RESPONSES	
Every year	2.63%	2
Every two years	13.16%	10
Between two and five years	53.95%	41
After five years	10.53%	8
Workers should not have to take refresher courses.	2.63%	2
Other (please specify)	17.11%	13
TOTAL		76

Q29: How important would having a centralized, online tracking system in Manitoba to store and retrieve records of workers' completion of standardized safety training be to your organization?



ANSWER CHOICES	RESPONSES	
Not important	9.21%	7
Minimally important	15.79%	12
Moderately important	22.37%	17
Important	18.42%	14
Very important	34.21%	26
TOTAL		76

Q30: How helpful would each of the following resources be to assist your organization in complying with a standards-based training system?



	NOT HELPFUL	A LITTLE HELPFUL	MODERATELY HELPFUL	HELPFUL	VERY HELPFUL	NOT APPLICABLE	TOTAL
Prepared training content	2.63% 2	3.95% 3	10.53% 8	30.26% 23	48.68% 37	3.95% 3	76
Third-party support to adjust your current materials	2.63% 2	10.53% 8	17.11% 13	34.21% 26	28.95% 22	6.58% 5	76
Third-party support to meet the requirements for trainer accreditation	3.95% 3	6.58% 5	11.84% 9	26.32% 20	44.74% 34	6.58% 5	76
Incentives to reduce costs associated with meeting the standards	2.63% 2	2.63% 2	10.53% 8	17.11% 13	60.53% 46	6.58% 5	76
Implementation support tools such as templates and checklists	1.32% 1	1.32% 1	11.84% 9	23.68% 18	55.26% 42	6.58% 5	76



Project Supporters

