


Analysis of Licensing Standards

Gap analysis between the Entry-Level Professional Driver
Occupational Standards and The Jurisdictional Licensing Standards

October 2008
Updated February 2009



**Canadian Trucking
Human Resources Council**

Canada  This project is funded by the
Government of Canada's Sector Council Program.

Acknowledgements

The Canadian Trucking Human Resources Council (CTHRC) wishes to express sincere appreciation for the contribution of representatives from the Gap Steering Committee; the Canadian Council of Motor Transport Administrators Secretariat (CCMTA) and the Drivers and Vehicles (D&V) working group; the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Québec, New Brunswick, Prince Edward Island, Nova Scotia and Newfoundland and Labrador; and the Yukon territory.

The Council thankfully acknowledges the support of Human Resources and Skills Development Canada (HRSDC).

© Canadian Trucking Human Resources Council 2009.

CONTACT INFORMATION

Canadian Trucking Human Resources Council

203 – 720 ch. Belfast Road

Ottawa, ON K1G 0Z5

Tel: 613-244-4800

Fax: 613-244-4535

E-mail: info@cthrc.com

Internet: www.cthrc.com

DISCLAIMER

Canadian legislation and regulations remain the official records of all federal, provincial and territorial laws of Canada. While every effort is made to ensure accuracy through the participation of representatives from each jurisdiction, CTHRC assumes no responsibility with respect to the completeness, adequacy and accuracy of information, nor any liability resulting from the direct or indirect use of information contained herein. CTHRC makes no guarantees and assumes no responsibility for damages, if any, as a result of any use, reliance, decisions made and actions based on this report. The author, publisher and contributors shall not be held liable in any way for any loss or injury by an omission, error, misprint or ambiguity. If you have any questions regarding the content of this publication, the CTHRC staff is available to provide information and assistance.

Table of Contents

Executive Highlights	4-6
Background	7-8
Methodology	9-10
Research and Analysis	11
Comparative Results	11
Findings – Drive Vehicle (Table 2)	12
Findings – Plan Trips (Table 3)	13
Findings – Handle Cargo (Table 4)	14
Findings – Service Customers (Table 5)	15
Findings – Ensure Vehicle Maintenance (Table 6)	16
Findings – Perform Administrative Duties (Table 7)	17
Findings – Comply With Laws, Regulations, Policies & Standards (Table 8)	18-19
Findings – Demonstrate Communication And Interpersonal Skills (Table 9)	20
Findings – Demonstrate Personal Skills (Table 10)	21-22
Moving Forward – Next Steps	23
References	24

Executive Highlights

The Canadian Trucking Human Resources Council (CTHRC), as part of their plan to assist industry in addressing the *qualified driver shortage*, undertook at the request of industry the development of the Entry-Level Professional Driver Occupational Standards following the 1st National *Closing the Gap* meeting held in February 2006.

In support of one of the national recommendations adopted at the 2nd National *Closing the Gap* meeting in November 2006 that "Testing and licensing should meet a more stringent, industry-acceptable, national standards", the CTHRC agreed to undertake in cooperation with the jurisdictions, an analysis of the jurisdictional licensing standards as they relate to Entry-Level Standards for Professional Drivers and an update of requirements for a Class 1/A licence.

THE OBJECTIVES OF THE ANALYSIS ARE TWOFOLD:

- Conduct a survey to update jurisdictional commercial driver's licence requirements and a literature review of supporting documentation, including driver handbooks (commercial and non-commercial), theory test questions and practical/road tests assessments provided by each participating jurisdictions; and
- Compare the entry-level standards for drivers to the jurisdictional assessment standards for obtaining a Class 1/A commercial driver's licence and identify the gaps. *

*Since the entry-level standards include both technical and vocational competencies for this occupation, the analysis was extended to include a comparison with the technical requirements found in the National Safety Code and Provincial Highways Codes . These standards have been highlighted in relation to the tasks/competencies in the entry-level occupational chart.

This report contains a summary of the findings from the analysis, and suggested recommendations for moving forward to closing the gap between the jurisdictional assessment standards and the industry Entry-Level Standards.

FINDINGS

Notes on Methodology

For a number of years industry has requested a more stringent licensing standard for commercial drivers. Issuance of a Class 1/A licence in all jurisdictions has been tied to "permits to operate any tractor semi-trailer or truck trailer combination and all vehicles in Classes 5, 4, 3 and 2 (NSC #4)". The jurisdictions have argued that they do not issue a vocational licence (commercial drivers).

In analysing the survey data and the entry-level standards, the researcher also considered the requirements to ensure the safe operation of the vehicle as they relate to the National Safety Code (standards # 9, 10, 11 and 13) and the Provincial Highway Codes - PHC (including weights and dimensions and the Transportation of Dangerous Goods).

The reader should be aware that the current findings of this report are a **high level snap shot**. A weakness in the survey methodology became evident when completed returns indicated that jurisdictions had differently interpreted the definitions of knowledge (information

available in the various driver handbooks), theory (questions on the written exam) and practical (components tested on road test). The issue under examination was: to what degree was each task accommodated in each jurisdiction . For example, with respect to the knowledge of a task like "Comply with hours of service requirements", survey returns varied from making reference to a simple line in a handbook (e.g. referencing the need to comply with the HOS and a link to a website), to providing detailed information on the pertinent jurisdictional regulation.

Because the initial survey instructions did not provide adequate definitions of knowledge, theory, and practical, the results are subject to broad interpretation. Since the initial printing (October 2008), the jurisdictions have reviewed their responses and provided an update.

In spite of this caveat, there are still a number of observations and recommendations for moving forward that the researcher and GAP Steering Committee felt were of value.

KNOWLEDGE

In a further review of each jurisdictional driver handbook/manual by the researcher, the following was identified:

- Three jurisdictions have dedicated commercial driver manuals for Class 1/A licence that provide detailed information on NSC issues, provincial highway codes including weights and dimension as well as TDG . Some also cover attitudinal issues and performance as a professional driver.
- Four jurisdictions have dedicated commercial driver handbooks that provide an overview of some NSC requirements, provincial highway codes including weights and dimension as well as TDG. Some topics are covered in more depth but overall the material is not at the level of detail as the above-noted manuals.
- Four jurisdictions have no dedicated document, instead, a chapter or two within the generic driver's handbook makes reference to some requirements of commercial drivers.

Competencies tied to NSC and PHC (including W&D and TDG) not covered by all jurisdictions are:

- *Plan trips* – secure and obtain required documentation and equipment (only 66%)
- *Handle cargo* – plan cargo loading (only 50%) and secure loads (only 75%)
- *Ensure vehicle maintenance* – practise preventative maintenance (only 83%)
- *Perform administrative duties* – maintain daily log (only 42%) and prepare and submit inspection reports (only 58%)
- *Comply with laws* – comply with HOS requirements (only 67%), comply with highway safety codes (only 83%), comply with carriage

of goods (only 50%), comply with weights and dimensions (only 75%) and comply with TDG (only 67%)

When comparing the content of the handbooks/manuals to the national entry-level standard requirements, a number of competencies that may impact the safe operation of the vehicle and that are not addressed in general by most jurisdictions are:

- *Drive vehicle* – operate a tractor bobtailing (only 42%).
- *Plan trips* – plan and revise routes (only 8%).
- *Handle cargo* – load cargo (only 42%).
- *Ensure vehicle maintenance* – perform post-trip inspections and tasks (only 58%).
- *Demonstrate personal skills* – demonstrate professionalism and integrity (only 33%), manage fatigue and stress (only 42%), demonstrate situational awareness (only 25%), and adapt to change (only 8%).

THEORY ASSESSMENT

The researcher reviewed the types of questions posed in the theory assessments. The purpose of this assessment as per the National Safety Code Standard # 2 is to "test the applicant on the knowledge given in the driver's handbook using multiple choice questions and/or using a "communigraphic style" of question; this method tests the ability of the applicant to reason out problems based upon road rules and regulations".

OUR RESEARCH SHOWS THAT:

- As previously identified in the Jurisdictional Matrix Requirements chart, the number of questions in theory assessments vary between 5 and 70 questions across jurisdictions.
- As stated above, the driver handbooks of some jurisdictions have very little information relating to operating a Class 1/A commercial vehicle.
- From the sample of questions reviewed, and feedback from jurisdictions, it was not possible to confirm that there were questions posed on all knowledge competencies identified since some content was covered in the handbook but not assessed, e.g. comply with HOS listed identified under Knowledge but not identified under Theory assessment performed.
- The other issue that arises is the purpose of the question and how they are formulated - whether they assess the individual's understanding of the various requirements (rules of the road, application of regulations, etc.) or whether they are designed to measure the applicant's memory.

Noteworthy competencies that relate to NSC and PHC that are not assessed in theory by at least 70% of the jurisdictions include:

- *Handle cargo* – plan cargo loading and secure loads (only 33% and 50%).
- *Perform administrative duties* – maintain daily log (only 42%) and prepare and submit inspection reports (only 33%).
- *Comply with laws* – comply with HOS (only 42%), comply with carriage of goods (only 42%), comply with TDG (only 58%).

In a recent report produced by the Traffic Injury Research Foundation

(2007) entitled Commercial Vehicle Driver Licensing Standards in British Columbia, it was stated that regarding the knowledge test..."it still may make sense to review the question bank and the driver's handbook to identify any information gaps related to driver competencies and vocational skills relevant to the industry and consistent with the safe operation of heavy trucks. The same may apply to pre-trip inspection and air brake test." TIRF goes on to suggest that there may be a need for industry "...to make the case that vocational skills not covered in these tests have safety implications"

PRACTICAL ASSESSMENT

The National Safety Code Standard # 2 states that: "the purpose of the road test is to gauge a driver's capabilities to operate a motor vehicle safely under varying road and traffic conditions, as well as a measure of his knowledge of the rules of the road". The standard also states that "a prospective driver may have the necessary physical qualifications for safe driving, full knowledge of the rules of the road and safe driving habits, but these alone will not ensure the safe operation of the vehicle. The driver must also be able to make the vehicle do the things which the contingencies of traffic require and satisfactorily solve actual driving situations – a person's total ability as a driver".

Examples of some of the competencies tied to NSC and PHC that are not being assessed by all jurisdictions:

- *Drive vehicle* – adapt driving to operating requirements (only 75%), and manage emergency unexpected situations (only 42%).
- *Ensure vehicle maintenance* – practice preventative maintenance (only 67%).
- *Perform administrative duties* – maintain daily log (only 8%), prepare/submit inspection reports (only 17%).
- *Comply with laws* – comply with highway safety codes (only 75%), comply with weights and dimensions (only 17%), and comply with TDG (only 8%).

As our Jurisdictional Matrix confirmed and the TIRF 2007 report found, "some jurisdictions have lengthier period of actual driving over more distance and this increases the number of observations and opportunities to demonstrate driving skills and behaviour under various traffic conditions". Only one jurisdiction reported using loaded trailers during the road test.

The TIRF goes on to say that "a more challenging test would require better preparation of the applicant so they can pass it, and presumably produce more qualified, competent drivers."

This could potentially have a positive impact on the employability of newly licenced drivers wanting to work in the trucking industry. This could also have an impact on the safety performance of newly licenced drivers.

It should be noted that some participating jurisdictions are starting to assess some aptitude and attitude skills as part of the road test.

ALBERTA CDL

Although the Alberta CDL endorsement had appeared in the chart at the beginning of the analysis, it was decided to withdraw it from the jurisdictional chart because there was no direct assessment being conducted by the Government of Alberta.

The issuance of this endorsement by Alberta Transportation is based on a Certification Program for training professional drivers approved by Advanced Education that meets industry needs . This program delivers training and assesses students to the national entry-level occupational standards for professional drivers.

POTENTIAL IMPACT OF NOT MOVING FORWARD

It is believed by industry that:

- The absence of consistent and comparable information in the jurisdiction's commercial driver handbooks/manuals, directly impacts the future driver's ability to operate a vehicle safely especially if there was no previous training to industry standards provided prior to the test, or if the training provider relied solely on the jurisdictional material as reference;
- As reported in the TIRF report, "licensing standards drive training standards . As a consequence, test requirements influence the quality and quantity of training and improvements to the test that make it more challenging that should result in better training"; and
- The absence of uniform theory and practical testing across jurisdictions contributes to the shortage of qualified drivers if minimum standards for licensing are below those for a driver to be employable in the industry.

It is safe to say that today's employers are looking for drivers who can demonstrate sound driving skills, good attitude, and the ability to communicate effectively with customers, dispatchers, and supervisors . They will assess the driver's commitment to working safely and look for the ability to make sound decisions about how to handle paperwork, equipment and cargo.

In short, they are looking for someone who has the potential to become an expert driver as outlined in the National Occupational Standards (NOS).

MOVING FORWARD

Although there have been a number of changes made by jurisdictions to enhance and strengthen their assessment process in granting a Class 1/A Commercial Driver licence, there are still a number of competencies that jurisdictions could include in their assessment in order to satisfy the objective of providing a "more stringent industry-acceptable national standard".

This report proposes that more work be done by jurisdictions in cooperation with industry on the following:

- The development of a more rigorous Professional/Commercial Driver handbook could easily be accomplished by identifying the best from each jurisdiction manual and combining it into a common handbook used by all jurisdictions.
- The development a rigorous and defensible data bank of test questions could be used by all jurisdictions . Recognising the work done by the US (AAMVA) in working with computerized testing software and a pool of test items, we could ensure consistency and uniformity in assessing applicants' knowledge across the country.
- Agreement on increasing the road test items would raise driver training standards to a higher level and close the gap between industry needs and government licensing.
- Although still in the piloting stage, the Alberta Government's initiative will be providing graduates from the Red Deer College program with a Commercial Driver Endorsement on their Class 1 licence. This practice could be easily adopted by all jurisdictions as they recognize the competencies required by entry-level drivers as per the Professional Drivers Occupational Standards (PDOS) without possibly incurring regulation changes and costly computer changes.

Background

In 2005, the Canadian Trucking Human Resource Council (CTHRC) initiated the project *Closing the Gap*. Its main objective was to address the shortage of qualified commercial drivers in Canada.

Phase I of this national project began in 2006 with an initial winter national meeting bringing together a diverse group of government and industry stakeholders; a series of spring provincial and territorial workshops across Canada were held with an objective of including regional points of view and perspectives; and a 2nd national meeting to share findings and develop national recommendations and themes for moving forward.

The national meetings under the heading of *Closing the Gap* provided an avenue for industry stakeholders and provincial partners to:

- Increase their awareness of common challenges facing the trucking industry and the various levels of government;
- Share practices and initiatives that have been already implemented or, are being developed in different jurisdictions; and
- Potentially, engage participants in considering options.

At the first national meeting in the spring of 2006, industry tasked the Council with defining the entry-level standards for a commercial driver using the current National Occupational Standard for Professional Driver.

At the fall 2006 national meeting, participants agreed that "Testing and Licensing should meet a more stringent industry-acceptable national standard" and that the role of government was seen as a catalyst to improve road safety by ensuring the capability and quality of entry-level professional drivers.

With the cooperation of CCMTA and the jurisdictions, the CTHRC secured the funds to update the jurisdictional requirements for the Class 1/A licence and conduct an analysis of the licensing standards in relation to the entry-level standards set by industry.

OCCUPATIONAL STANDARDS

Two documents were used in the gap analysis: the National Occupational Standards (NOS) which describes the full range of competencies needed to perform satisfactorily on-the-job in a defined occupation; and a Task Analysis which provides more detail in understanding the tasks (competencies) involved in the occupation as well as the sub-tasks and performance indicators/actions/standards that are used in curriculum development and developing assessment tools.

Occupational standards are the basis for most major aspects of Human Resources Management activities from the recruitment phase to the career laddering phase. They enable companies to better access their needs for organizational structuring.

The NOS must be broad enough to reflect the tasks, skills and attributes needed by Professional Drivers working in different segments of the industry. Drivers need well-developed driving skills, they also need to plan trips, stay organized, complete extensive paperwork, observe the performance of their vehicles and stay informed on regulations governing their work.

They have to adapt their driving skills to new types of equipment and routes. They must be vigilant about safety – theirs, the public and their cargo.

CTHRC has benchmarked both the technical and essential skills standard for the occupation by asking the following questions:

- which types of skills and competencies will be required for entry-level professional drivers?
- what are the required areas in which professional drivers should be competent?
- what are the main or core functions of entry-level professional drivers?
- what are the required level of competency to perform those functions?
- are the intended required skills in line with the knowledge-base era we currently find ourselves?

Example of Technical and Essential Skill Standards to Drive a Vehicle: (Table 1)

General Areas of Competence	TASKS	SUB-TASKS	PERFORMANCE INDICATORS /ACTIONS / STANDARDS	GENERAL COMPETENCIES
Drive Vehicle	<ul style="list-style-type: none"> Execute vehicle manoeuvres 	<ul style="list-style-type: none"> Execute coupling/uncoupling manoeuvres 	<ul style="list-style-type: none"> Follow set rules and procedures Follow flagman / guide signals 	<ul style="list-style-type: none"> Make decisions; Work methodically
		<ul style="list-style-type: none"> Execute backing manoeuvres 	<ul style="list-style-type: none"> Execute straight backing procedures Execute serpentine backing procedures Follow flagman / guide signals 	
		<ul style="list-style-type: none"> Execute docking manoeuvres 	<ul style="list-style-type: none"> Execute straight backing / docking procedures Execute alley docking / backing procedures Follow flagman / guide signals 	
		<ul style="list-style-type: none"> Execute parking manoeuvres 	<ul style="list-style-type: none"> Execute blind jackknife backing/parking procedures Execute right jackknife backing / parking procedures Execute parallel parking procedures Follow flagman / guide signals 	

Methodology

In undertaking this review, CTHRC relied extensively on the information and literature (Driver’s Handbook, Commercial Driver’s Handbook), and copies of the Theory and Road test provided by governmental jurisdictions. The partnership with the CTHRC Gap Steering committee, the provinces and territories and CCMTA was instrumental in completing this analysis.

Occupational Standard

The following (9) General Areas of Competence from the National Entry-Level Occupational Standard for Professional Driver were identified for the purpose of this review:

- Drive vehicle
- Plan trips
- Handle cargo
- Service customers
- Ensure vehicle maintenance
- Perform administrative duties
- Comply with laws, regulations, policies and standards
- Demonstrate interpersonal and communication skills
- Demonstrate personal skills

Rating Scale

Each task falling under a General Areas of Competence is assigned a skill level based on Blooms Taxonomy¹:

RATING	DESCRIPTOR
6	Great deal of skill and knowledge, able to develop and teach new/better ways of doing things. EVALUATION
5	Experienced practitioner, the one you send out on the difficult jobs. SYNTHESIS
4	Individual has knowledge and skill necessary to operate independently ALL the time. ANALYSIS
3	Individual has knowledge and can perform the task competently and independently MOST of the time APPLICATION
2	Individual has basic and some advanced knowledge and can perform in under supervision or with assistance UNDERSTANDING
1	Individual has some knowledge, but limited practical ability. In training". KNOWLEDGE
0	No skills or knowledge

¹ Bloom identified six levels within the cognitive domain, from the simple recall or recognition of facts, as the lowest level, through increasingly more complex and abstract mental levels, to the highest order which is classified as evaluation. Verb examples that represent intellectual activity on each level are listed here.

SKILL LEVEL FOR ENTRY-LEVEL

The rating describes the expected level of skill of the candidate once the entry-level training is completed. Not all competencies can be acquired through training at a training school; some require additional coaching at the carrier over a period of several months.

CRITICAL (3)

Individual has knowledge and can perform the task competently and independently MOST of the time.

IMPORTANT (2)

Individual has basic and some advanced knowledge and can perform under supervision or with assistance.

NOT IMPERATIVE (1)

Individual has some knowledge, but limited practical ability or in "training".

JURISDICTIONAL ASSESSMENT COMPONENTS

The analysis of jurisdictional assessment standards was based on three (3) components:

KNOWLEDGE: information available in various driver handbooks

THEORY: questions on the written exam

PRACTICAL: road test (components which applicants are being tested on)

The reader should be aware that a weakness in the survey methodology became evident when completed returns indicated that jurisdictions had differently interpreted the definitions of knowledge (information available in the various driver handbooks), theory (questions on the written exam) and practical (components tested on road test). The issue under examination was: to what degree was each task accommodated in each jurisdiction. For example, with respect to the knowledge of a task like "Comply with hours of service requirements", survey returns varied from making reference to a simple line in a handbook (e.g. referencing the need to comply with the HOS and a link to a website), to providing detailed information on the pertinent jurisdictional regulation.

Therefore, because the survey instructions did not provide adequate definitions of knowledge, theory, and practical, the October 2008 results are subject to broad interpretation.

Upon seeing the results in October 2008, the members of CCMTA D&V Committee requested an opportunity to review and update their responses based on the Task Analysis and requirements for entry-level drivers. The charts that follow contain the newly revised charts as of February 2009.

Research and Analysis

To conduct the research the following steps were performed:

LITERATURE REVIEW AND CONSULTATIONS

Jurisdictions, with the assistance of the CCMTA - D&V working group, provided the most recent documentation (Driver's and Commercial Driver's Handbooks, Theory and Practical Road tests). A review was conducted for the purpose of ascertaining which of the tasks and sub-tasks of the PDOS were incorporated in the jurisdictional assessment standards.

There was ongoing dialogue with jurisdictions and stakeholders during this process to ensure there was no misinterpretation of the literature provided.

DEVELOPMENT, DISTRIBUTION AND REVIEW OF A SURVEY

A survey template, based on the PDOS, was developed and distributed to the jurisdictions to facilitate the collection and eventual validation of data.

Completed jurisdictional surveys were reviewed by the researcher against the literature to gain a clear understanding of existing practices, and if required, amended to reflect the information provided in the documentation.

ANALYSIS OF DATA AND PRELIMINARY FINDINGS

A comparative analysis of the completed surveys was conducted and results were charted in an aggregate form and included in a preliminary report.

The preliminary findings identified to what extent the combined jurisdictions were assessing each of the competencies listed in the occupational standard. These findings were presented at the Annual Meeting of the Canadian Council of Motor Transport Administrators held in St John's, Newfoundland in May 2008.

VALIDATION OF PRELIMINARY FINDINGS AND ANALYSIS

Each jurisdiction was given a second opportunity to review their responses to the PDOS survey with a copy of the Task Analysis in hand, helping them to better understand the details behind each task (competency) being assessed.

Where applicable some jurisdictions provided a revised version of their responses and preliminary findings were adjusted as required.

A draft report was submitted to the GAP Steering Committee for review prior to finalization.

PRESENTATION OF REPORT AT THE FALL CCMTA MEETING IN OCTOBER, 2008.

CTHRC presented their preliminary report at the fall meeting in Ottawa, Ontario.

FINAL REVIEW AND UPDATING BY JURISDICTIONS IN FEBRUARY 2009

With the support of CCMTA, the jurisdictions reviewed and updated their responses.

Comparative Results

Based on the survey responses submitted by jurisdiction, each result was plotted in a national chart allowing for a national comparative overview of responses per GAC and task for each of the three jurisdictional components.

Each GAC appears as a separate chart with the jurisdictional results plotted. The responses were analysed against the Tasks analysis and also against a number of National Safety Code standards and Provincial Highway Codes.

COLOR CODED:

DARK GREY represents the responses to the tasks that are being acknowledged, addressed or assessed in the Knowledge, Theory and Practical components.

WHITE tasks not being covered in the Knowledge, Theory and Practical components.

NATIONAL SAFETY CODE (NSC) – PROVINCIAL HIGHWAY CODE (PHC)

Since the jurisdictions focus their assessments on the technical competencies, it was decided to highlight which of these NSC and PHC standards were included as tasks in the occupational chart; and to identify if any gaps existed. These tasks have been bolded and shaded for reference

Note:

The reader must be realise that the responses provided by the jurisdictions do not correspond to an assessment of the level of competency of the individual, only that the topic has been reviewed/ assessed in theory and practice. There still may be gaps between the level of competency required by industry and that of the jurisdiction.

Drive Vehicle (Table 2)

Tasks Critical (4) – Not Imperative (1)

GENERAL AREA OF COMPETENCES	TASK	SKILL LEVEL		YK	NWT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	RESULTS	
A. Drive Vehicle	1. Operate tractor-trailer combinations	Critical (3)	Knowledge													12-12 (100%)	
			Theory														12-12 (100%)
			Practical														12-12 (100%)
	2. Operate a tractor bobtailing	Critical (3)	Knowledge														5-12 (42%)
			Theory														4-12 (33%)
			Practical														3-12 (25%)
	3. Execute vehicle manoeuvres	Critical (3)	Knowledge														12-12 (100%)
			Theory														12-12 (100%)
			Practical														12-12 (100%)
	4. Adapt driving to operating requirements	Critical (3)	Knowledge														11-12 (92%)
			Theory														10-12 (83%)
			Practical														9-12 (75%)
	5. Operate specialized equipment	Not Imperative (1)	Knowledge														1-12(8%)
			Theory														0-12
			Practical														0-12
	6. Manage emergency unexpected situations	Critical (3)	Knowledge														10-12 (83%)
			Theory														9-12 (75%)
			Practical														5-12 (42%)

FINDINGS:

- *Operating a tractor bobtail* - Only a small number of jurisdictions address/assess this competency;
- *Adapt driving to operating requirements* - Three jurisdictions do not perform a practical assessment but do cover in knowledge and theory assessment;
- *Manage emergency unexpected situations* - Only 5 jurisdictions perform a practical assessment; 10 cover it in knowledge and only 9 assess in theory.
- Practical assessment – only one jurisdiction performs its road test with a loaded trailer; duration of driving time varies from 30 minutes to 60 minutes (jurisdictional matrix report).

Plan Trips (Table 3)

Tasks Critical (2) – Important(2)

GENERAL AREA OF COMPETENCE	TASK	SKILL LEVEL		YK	NWT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	RESULTS	
B. Plan Trips	1. Confirm cargo and logistics	Important (2)	Knowledge													3-12 (25%)	
			Theory														1-12 (8%)
			Practical														0-12
	2. Plan / revise routes	Critical (3)	Knowledge														1-12 (8%)
			Theory														1-12 (8%)
			Practical														0-12
	3. Finalise trip plan	Critical (3)	Knowledge														0-12
			Theory														0-12
			Practical														0-12
	4. Secure / obtain required documents and equipment	Important (2)	Knowledge														8-12 (67%)
			Theory														4-12 (33%)
			Practical														3-12 (25%)

FINDINGS:

- Many participating jurisdictions considered this General Area of Competence (GAC) to be part of the hiring process of trucking companies and not regulated by provincial or territorial jurisdictions.
- *Secure/obtain required documents and equipment* – This tasks does link to the NSC and a very small number of jurisdictions have seen fit to provide a knowledge component while only 3 perform a practical assessment.

Handle Cargo (Table 4)

Tasks: Important (4)

GENERAL AREA OF COMPETENCE	TASK	SKILL LEVEL		YK	NWT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	RESULTS	
C. Handle Cargo	1. Plan cargo loading	Important (2)	Knowledge													6-12 (50%)	
			Theory														4-12 (33%)
			Practical														0-12
	2. Load cargo	Important (2)	Knowledge														5-12 (42%)
			Theory														4-12 (33%)
			Practical														0-12
	3. Secure loads	Important (2)	Knowledge														9-12 (75%)
			Theory														6-12 (50%)
			Practical														1-12 (8%)
	4. Unload cargo	Important (2)	Knowledge														1-12 (8%)
			Theory														0-12
			Practical														0-12

FINDINGS:

- Although only one jurisdiction performs a practical assessment on securing loads, 7 jurisdictions have either included a knowledge component and /or a theory assessment of this standard.
- Where a knowledge component was included in the handbook, it was not always assessed in theory.

Service Customers (Table 5)

Tasks: Critical (1) – Important (3)

GENERAL AREA OF COMPETENCE	TASK	SKILL LEVEL		YK	NWT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	RESULTS	
D. Service Customers	1. Ensure customer satisfaction	Important (2)	Knowledge													0-12	
			Theory														0-12
			Practical														0-12
	2. Handle complaints	Critical (3)	Knowledge														0-12
			Theory														0-12
			Practical														0-12
	3. Participate in improving customer services	Important (2)	Knowledge														0-12
			Theory														0-12
			Practical														0-12
	4. Participate in creating sales opportunities	Important (2)	Knowledge														0-12
			Theory														0-12
			Practical														0-12

FINDINGS:

- This is a General Area of Competence that is considered by all participating jurisdictions as being the responsibility of the trucking companies and not governmental testing authorities.

Ensure Maintenance (Table 6)

Tasks: Critical (4)

GENERAL AREA OF COMPETENCE	TASK	SKILL LEVEL		YK	NWT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	RESULTS	
E. Ensure Vehicle Maintenance	1. Practice preventative maintenance	Critical (3)	Knowledge													10-12 (83%)	
			Theory														10-12 (83%)
			Practical														8-12 (67%)
	2. Perform pre-trip inspection	Critical (3)	Knowledge														12-12 (100%)
			Theory														12-12 (100%)
			Practical														12-12 (100%)
	3. Perform post-trip inspection and tasks	Critical (3)	Knowledge														7-12 (58%)
			Theory														3-12 (25%)
			Practical														0-12
	4. Maintain accessory equipment	Critical (3)	Knowledge														3-12 (25%)
			Theory														3-12 (25%)
			Practical														0-12

FINDINGS:

- The Air Brake Course is the only mandated program required before taking the jurisdictional test.
- One jurisdiction does not address Practice preventative maintenance in any form.
- A number of jurisdictions have seen fit to include additional information and testing of other tasks such as *Practice preventative maintenance*, *Perform post-trip inspections* and *Maintain accessory equipment*.

Perform Administrative Duties (Table 7)

Tasks: Critical (2) – Important (2)

GENERAL AREA OF COMPETENCE	TASK	SKILL LEVEL		YK	NWT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	RESULTS		
F. Perform Administrative Duties	1. Maintain daily log	Critical (3)	Knowledge													5-12 (42%)		
			Theory														5-12 (42%)	
			Practical															1-12 (8%)
	2. Administer bills of lading	Important (2)	Knowledge														1-12 (8%)	
			Theory															0-12
			Practical															0-12
	3. Prepare / submit inspection reports	Critical (3)	Knowledge														7-12 (58%)	
			Theory															4-12 (33%)
			Practical															2-12 (17%)
	4. Prepare / submit documents and requests	Important (2)	Knowledge														2-12 (17%)	
			Theory															1-12 (8%)
			Practical															0-12

FINDINGS:

- This GAC received a low response from the participating jurisdictions. The Knowledge component of the assessment indicated that the handbooks make reference to some of the tasks but not necessarily measured on the Theory and Practical components.
- Tasks 1 and 3 that are linked to the NSC are not covered by 5 or 6 jurisdictions

Comply with Laws, Regulations, Policies and Standards (Table 8)

Tasks: Critical (3) – Important (8) – Not Imperative (4)

GENERAL AREA OF COMPETENCES	TASK	SKILL LEVEL		YK	NWT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	RESULTS		
G. Comply With Laws, Regulations, Policies and Standards	1. Comply with hours of service requirements	Critical (3)	Knowledge													8-12 (67%)		
			Theory														5-12 (42%)	
			Practical															0-12
	2. Comply with highway safety codes and related regulations	Critical (3)	Knowledge	Knowledge													10-12 (83%)	
				Theory														10-12 (83%)
				Practical														9-12 (75%)
	3. Comply with occupational health and safety requirements	Important (2)	Knowledge	Knowledge													2-12 (17%)	
				Theory														1-12 (8%)
				Practical														1-12 (8%)
	4. Comply with carriage of goods requirements	Important (2)	Knowledge	Knowledge													6-12 (50%)	
				Theory														5-12 (42%)
				Practical														1-12 (8%)
	5. Comply with governing drug and alcohol regulations and policies	Important (2)	Knowledge	Knowledge													7-12 (58%)	
				Theory														4-12 (33%)
				Practical														0-12
	6. Comply with weights and dimensions requirements	Important (2)	Knowledge	Knowledge													9-12 (75%)	
				Theory														9-12 (75%)
				Practical														2-12 (17%)
	7. Comply with labour code requirements	Not Imperative (1)	Knowledge	Knowledge													0-12	
				Theory														0-12
				Practical														0-12

(Table 8) Continued

Tasks: Critical (2) – Important (8) – Not Imperative (5)

GENERAL AREA OF COMPETENCES	TASK	SKILL LEVEL		YK	NWT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	RESULTS		
G. Comply With Laws, Regulations, Policies and Standards	8. Comply with human rights requirements	Important (2)	Knowledge													0-12		
			Theory														0-12	
			Practical															0-12
	9. Comply with dangerous goods requirements	Not Imperative (1)	Knowledge														8-12 (67%)	
			Theory															7-12 (58%)
			Practical															1-12 (8%)
	10. Comply with environmental requirements	Important (2)	Knowledge														2-12 (17%)	
			Theory															1-12 (8%)
			Practical															0-12
	11. Comply with food safety requirements	Not Imperative (1)	Knowledge														1-12 (8%)	
			Theory															1-12 (8%)
			Practical															0-12
	12. Comply with customs and immigration requirements	Critical (3)	Knowledge														1-12 (8%)	
			Theory															0-12
			Practical															0-12
	13. Comply with tax requirements	Not Imperative (1)	Knowledge														0-12	
			Theory															0-12
			Practical															0-12
	14. Comply with company contracts and agreements	Important (2)	Knowledge														0-12	
			Theory															0-12
			Practical															0-12
15. Comply with company policies, procedures and standards	Important (2)	Knowledge														2-12 (17%)		
		Theory															0-12	
		Practical															0-12	

FINDINGS:

- *Comply with hours of service* – of the 8 jurisdictions that address this topic in their driver handbook, only 4 perform a theory assessment.
- *Highway safety code* – only 10 jurisdictions provide knowledge and assessments for this task.
- *Carriage of goods requirements* - of the 6 jurisdictions that address this topic in their driver handbook and theory assessment, only 1 performs a practical assessment.
- *Weights and dimensions* – of the 9 jurisdictions that address this topic in their driver handbook, and theory assessment, only 2 perform a practical assessment.
- *Dangerous goods* – 8 jurisdictions address the topic in their driver handbook, only 7 perform a theory assessment and 1 a practical assessment.
- Jurisdictions feel that a large number of these competencies are the responsibility of industry as opposed to the regulating authorities.

Demonstrate Communication and Interpersonal Skills (Table 9)

Tasks: Critical (2) – Important (4) – Not Imperative (3))

GENERAL AREA OF COMPETENCES	TASK	SKILL LEVEL		YK	NWT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	RESULTS		
I. Demonstrate Communication And Interpersonal Skills	1. Practice active listening	Critical (3)	Knowledge													0-12		
			Theory														0-12	
			Practical															1-12 (8%)
	2. Speak in a clear and concise manner	Important (2)	Knowledge														0-12	
			Theory															0-12
			Practical															1-12(8%)
	3. Write in a clear and concise manner	Important (2)	Knowledge														0-121	
			Theory															0-12
			Practical															1-12(8%)
	4. Demonstrate people skills	Critical (3)	Knowledge														0-12	
			Theory															0-12
			Practical															0-12
	5. Work as a team member	Important (2)	Knowledge														0-12	
			Theory															0-12
			Practical															0-12
	6. Negotiate	Not Imperative (1)	Knowledge														0-12	
			Theory															0-12
			Practical															0-12
	7. Persuade	Not Imperative (1)	Knowledge														0-12	
			Theory															0-12
			Practical															0-12
	8. Exercise leadership	Not Imperative (1)	Knowledge														0-12	
			Theory															0-12
			Practical															0-12
	9. Select medium of communication	Important (2)	Knowledge														0-12	
			Theory															0-12
			Practical															0-12

FINDINGS:

- Only two jurisdictions have reported assessing 3 of the 9 tasks. These tasks are being observed during the practical component (road test).

Demonstrate Personal Skills (Table 10)

Tasks: Critical (10) – Important (2)

GENERAL AREA OF COMPETENCES	TASK	SKILL LEVEL		YK	NWT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	RESULTS	
J. Demonstrate Personal Skills	1. Demonstrate professionalism and integrity	Critical (3)	Knowledge													4-12 (33%)	
			Theory														1-12 (8%)
			Practical														1-12 (8%)
	2. Demonstrate thoroughness and attention to detail	Critical (3)	Knowledge														0-12
			Theory														0-12
			Practical														2-12 (17%)
	3. Work methodically	Critical (3)	Knowledge														0-12
			Theory														0-12
			Practical														1-12 (8%)
	4. Manage time	Important (2)	Knowledge														1-12 (8%)
			Theory														0-12
			Practical														0-12
	5. Solve problems	Critical (3)	Knowledge														0-12
			Theory														0-12
			Practical														1-12 (8%)
	6. Make decisions	Critical (3)	Knowledge														0-12
			Theory														0-12
			Practical														2-12 (17%)

(Table 10) Continued

Tasks: Critical (10) – Important (2)

GENERAL AREA OF COMPETENCES	TASK	SKILL LEVEL		YK	NWT	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	RESULTS	
J. Demonstrate Personal Skills	7. Exercise initiative and resourcefulness	Critical (3)	Knowledge													0-12	
			Theory														0-12
			Practical														1-12 (8%)
	8. Manage fatigue and stress	Critical (3)	Knowledge														5-12 (42%)
			Theory														0-12
			Practical														1-12 (8%)
	9. Demonstrate situational awareness	Critical (3)	Knowledge														3-12 (25%)
			Theory														2-12 (17%)
			Practical														2-12 (17%)
	10. Adapt to change	Important (2)	Knowledge														1-12 (8%)
			Theory														0-12
			Practical														1-12 (9%)
	11. Pursue continuous learning activities	Critical (3)	Knowledge														0-12
			Theory														0-12
			Practical														1-12 (8%)
	12. Balance family and work commitments	Critical (3)	Knowledge														1-12 (8%)
			Theory														0-12
																	1-12 (8%)

FINDINGS:

- Six jurisdictions reported addressing and/or assessing some of the elements of the tasks.

Moving Forward – Next Steps

In the Mayhew 2007 report "Commercial Vehicle Driver Licensing Standards in British Columbia" by the Traffic Injury Research Foundation, they informed on the planned or proposed changes to licensing practices in Canada. Their report also provided British Columbia with a series of recommendations for moving forward.

As this report is the first to provide an overview of the gaps between the entry-level standards of professional drivers and the licensing standards for Class 1/A, it is the hope of industry that this will lead to further work in cooperation with all jurisdictions on addressing the quality of licenced commercial drivers in Canada.

Examples of the type of future work that could be undertaken include:

The development of a more rigorous Professional/Commercial Driver handbook could easily be accomplished by identifying the best from

each jurisdiction manual and combining it into a common handbook used by all jurisdictions.

The development a rigorous and defensible data bank of test questions could be used by all jurisdictions. Modelling the US and working with computerized testing software and a pool of test items could ensure consistency and uniformity in assessing applicants' knowledge across the country.

Agreement on increasing the road test items would raise driver training standards to a higher level and close the gap between industry needs and government licensing.

Although still in the piloting stage, the Alberta Government's initiative will be providing graduates from the Red Deer College program with a Commercial Driver Endorsement on their Class 1 licence. This practice could be easily adopted by all jurisdictions as they recognize the competencies required by entry-level drivers as per the Professional Drivers Occupational Standards (PDOS) without possibly incurring regulation changes and costly computer changes.

References

Jurisdictional driver handbooks/manuals from the Yukon, British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Québec, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland/Labrador

Jurisdictional theory exams from the Yukon, British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Québec, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland/Labrador

Jurisdictional practical road tests from the Yukon, British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Québec, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland/Labrador

Mayhew, D.R. 2007, *Commercial Vehicle Driver Licensing Standards in British Columbia*, Ottawa Ontario, Traffic Injury Research Foundation

CTHRC 2007, *Entry-Level Standards for Professional Driver and Task Analysis*, Ottawa, Ontario