

## **LEGAL DISCLAIMER**

**The views expressed in this paper are the views of the author(s) and do not necessarily reflect the views or policies of the Asian Development Bank (ADB), or its Board of Directors or the governments they represent.**

**ADB does not guarantee the source, originality, accuracy, completeness or reliability of any statement, information, data, finding, interpretation, advice, opinion, or view presented, nor does it make any representation concerning the same.**

## **Module 8: Professional Driver Training, part II**

---

### ***Purpose:***

To focus on training of professional drivers

### ***Learning Outcomes:***

Upon completion of the modules the participant will be able to:

- Describe three models for training professional drivers
- Identify key knowledge and skills required of professional drivers
- List challenges in providing the experience component for professional drivers
- Describe two programs that enable professional drivers to continue to develop their knowledge and skills

### ***Contents:***

- A. Models for professional driver training
- B. Training curricula for professional drivers
- C. Links between training, licensing and testing
- D. Models for continued professional development

### ***Format:***

#### **1. Overhead Presentation**

- General information on competencies required of professional drivers and challenges in implementing training programs

#### **2. Group Discussion**

1. Compare professional driver training in China with those in other jurisdictions:
  - Models
  - Curriculum
  - Driving experience
  - Expectations for professionalism
2. List three professional driver training issues in China and propose solutions for each.

## **Models for professional driver training**

In the Executive Summary of a comprehensive report for the CCMTA on commercial vehicle licensing in Canada, Christie and Mayhew (1999) stated the following with regard to training for professional drivers:

- There is little evidence to suggest that compulsory training for commercial drivers would lead to reduced crash risk or involvement.
- Support for compulsory training is relatively high among stakeholders – this may reflect a lack of familiarity with the research data regarding the crash reduction effects of driver training and/or support for agendas other than road safety per se e.g., raise the status of commercial driving as an occupation.

However, as discussed previously, these results may reflect the nature of professional training currently being provided, rather than the potential outcomes to be achieved by more comprehensive training programs.

The typical professional driver training model is for new drivers who hold a passenger vehicle license to start driving small trucks and receive on-the-job training as they move up in vehicle size. More experienced drivers often receive employer-provided training in specialized subjects. Some trucking companies employ their own trainers and many others use supervisors to conduct on-the-job training. The three models for formal training professional drivers are:

- Professional schools
- Company training programs
- Joint efforts

### **Professional schools**

Formal driving courses are available from a number of community colleges and private training providers. Many schools are oriented towards entry-level skills that prepare the learner to pass provincial driving tests. Such schools limit the scope of their programs to necessary topics such as basic driving skills, trip inspections, and skills for driving trucks and trailers and air brakes.

In British Columbia, courses vary in length from two to six weeks and vary in price. The length of time allocated to on-road practice varies as well. When the cost to attend a driver training school is born by the student, as is often the case, learners are likely to select their training based on the [lowest] price. The shorter the course and cheaper the cost, the less time will be available to develop required skills – and the less expertise will be developed prior to taking the road test.

Research into employer needs in Canada consistently show that, in the opinion of employers, current training courses do not provide adequate preparation for a professional truck driver. In particular, employers are interested in developing the skills needed to reduce accidents and maintenance costs and to boost fuel economy through the use of appropriate driving techniques (HRDC Trucker Profile). Professional school training is further discussed in the module section *Training curriculum for professional drivers*.

### **Company driving programs**

Many professional drivers start by driving small trucks and receive on-the-job training as they move up in vehicle size. More experienced drivers often receive employer-provided training in specialized subjects related to the commodity handled by a company. Some trucking companies employ their own trainers and many others use supervisors to conduct on-the-job training.

Some companies, notably bus companies, train their employees exclusively through their own program, and some are certified to test the prospective drivers as well.

A initiative was introduced in the United Kingdom in 2000 to try to reduce the hundreds of deaths involving high-risk motorists, including those driving as part of their work (TIMES/February 28, 2000). As stated in Module 3, although fewer than one in ten cars is company-owned in the UK, a quarter of fatal road accidents involve drivers of company cars and two-thirds of company vehicles are involved in accidents each years.

According to the TIMES article, in the future in the UK, the car will be treated in the same way as a factory machine, with safety inspectors demanding clear evidence of recent training. Government officials suggest that a company allowing a newly recruited teenager to drive a high-powered company car on a motorway will be more likely to be prosecuted in the event of an accident if additional training has not been provided.

### **Joint efforts**

Many professional drivers learn to drive commercial vehicles by attending professional training at a driving school and augmenting this training with company driving programs. This model is common, for example

- Where a company transports a commodity requiring additional care, such as dangerous goods
- When vehicles will be carrying fee-paying passengers (e.g, taxis, limousines)
- When special skills are requirements for high speed driving etc. (e.g., police, emergency vehicles)

## **Training curriculum for professional drivers**

On-the-job training is the principal means of acquiring skills in the commercial vehicle industry. However, formal training programs are widely available in many jurisdictions.

### **Profile of Truckers**

Although a minimum educational requirement for new employees is often high school graduation, basic literacy and numeracy skills of drivers are generally low. In particular, new recruits typically lack adequate training in new technologies (HRDC Trucker Profile). The skill level and aptitude of drivers who will be trained needs to be considered when designing training courses.

Training can be an ongoing expense to companies, with some companies reporting turnover in excess of 100% per year. Drivers most likely to change employers are those who are young, better educated and work for large carriers. The CTHRC study reported that the most common reason given for leaving a company were dissatisfaction with long hours away from home, low pay and poor relations with managers or dispatchers.

The need for additional training has been recognized by the Canadian Trucking Human Resources Council (CTHRC), a sector council created in 1993 with the support of Human Resources Development Canada. Sector Councils were initiated in Canada to develop ongoing strategies for dealing with the human resource needs in industries requiring support.

### **Training curricula for professional drivers**

Professional driver training curriculum from 14 national and international jurisdictions including Canada, New Zealand and the United States were gathered by ICBC (Commercial Vehicle Project, 1999). Little was found on developing bus drivers, taxi drivers or van operators. It was suggested that this is because most bus drivers are developed by employers/carriers and due to competitive reasons they prefer not to share their techniques for developing employees. Taxi drivers and truck operators may require less training, as their skill requirements are less than those required by larger commercial vehicle drivers [and not unlike the training required for passenger vehicles].

Curriculums for heavy vehicle training considered in this review to be of higher quality generally included the following topics (pp. 10-12):

## ***Core Topics***

- Curriculum documentation, e.g., course objectives
- Control systems, e.g., gauges
- Vehicle inspections
- Basic vehicle control\*
- Shifting
- Backing
- Docking
- Coupling and uncoupling
- Observation/scanning
- Vehicle communication
- Speed management
- Space management
- Night operation
- Extreme driving conditions
- Hazard perception
- Emergency maneuvers and skid avoidance
- Environmental issues, including handling hazardous cargo
- Hours of service requirements
- Accident procedures
- Managing life on the road/personal resources
- Trip planning
- Communication and customer service skills
- Handling passengers and lifting luggage

## ***Non-core topics***

- Identification and maintenance of vehicles
- Diagnosing and reporting malfunctions

*\*NOTE: Air brakes courses often taught at separate course*

## **Driving experience**

New commercial vehicle drivers must have experience driving the vehicle for which they will be licensed to drive. In a National Road Transport Commission report, the authors raise concerns regarding the practice in some jurisdictions of allowing exemptions or reductions in experience requirements if drivers complete professional training: “This is despite evidence that driving skills (and other complex skills) develop with experience rather than through training per se” (Christie and Fabre, 1988, p. 222).

The number of hours behind the wheel under conditions of low risk and supervised practice are two key considerations in driver training. They are of particular relevance to graduated licensing programs for commercial vehicles.

The number of hours of required practice behind the wheel and the specific conditions imposed in the learner period for commercial vehicle licences vary across jurisdictions. Examples of conditions include the length of time one has held a passenger vehicle licence and whether a supervisor is required.

In North America, a supervisor is generally required to accompany new drivers in the learner period. In Europe there are some jurisdictions where practice is only allowed with a professional trainer. Supervised practice can be problematic for new commercial drivers

for it is often necessary to pay someone to supervise the practice. This can be very expensive for the new driver or for a company sponsoring the training in an apprenticeship model.

### **Occupational standard for the trucking industry**

The goal of the CTHRC is to ensure that an adequate supply of workers is available (given an anticipated shortage of qualified drivers), with the right knowledge, skills and commitment to meet the needs of the Canadian trucking industry. The CTHRC conducted an analysis of the tasks/skills/knowledge and attributes needed to perform competently as a professional truck driver in Canada.

A page from the Professional Driver Assessment Tool, developed following an extensive consultative process with industry representatives from across Canada by CTHRC (2000), is included with this module. The tool identifies mastery- level, rather than entry-level, competencies required by professional truck drivers. The tool reflects all competencies that comprise the skill set of an experienced, professional driver in order to meet the needs of the industry, rather than the minimum requirements often taught in professional driving schools. In reality, the tasks performed and the skills used by individual professional drivers to accomplish them will be influenced by factors such as carrier type, size of carrier, organization of work, type of goods, size, and level of technology in place.

The competencies for Truckers included in the Professional Driver Assessment Tool are:

- Demonstrate Personal Attributes
- Communicate Effectively
- Service Internal and External Customers
- Driving Skills
- Defensive Driving
- Compliance Requirements
- Documentation
- Trip Planning
- Trip Inspections
- Cargo Handling and Load Securement
- Vehicle Maintenance
- Business Skills for Owner-Operators

<b>Driving Skills</b>	Operate a tractor bob-tailing	Operate tractor-trailer combinations	Apply appropriate steering techniques	Apply appropriate braking techniques	Apply driving techniques to cargo and equipment	Consider personal driving skill level in making driving decisions	Execute safe backing, docking and parking maneuvers	Couple and uncouple tractor-trailer safety	Operate specialized equipment	Optimize fuel efficiency	Apply efficient road management techniques
	D-1	D-2	D-3	D-4	D-5	D-6	D-7	D-8	D-9	D-10	D-11
<b>Group D</b>											

Apply progressive shifting techniques
D-12

<b>Defensive driving</b>	Expect the unexpected	Assess alertness and fatigue levels regularly	Adjust speed to road, weather and traffic conditions	Manage the space required for safe vehicle operation	Recognize potential dangers and hazards in the driving environment	Execute emergency braking and steering techniques	Assess driving conditions of the highways, expressways, mountain roads and urban roads	Adapt vehicle for driving in adverse conditions	Operate vehicle safely in adverse conditions	Operate vehicle safely at night	Apply procedures in response to incidents and/or accidents
	E-1	E-2	E-3	E-4	E-5	E-6	E-7	E-8	E-9	E-10	E-11
<b>Group E</b>											

Source: Professional Driver Assessment Tool, Canadian Trucking Human Resource Council, HRDC, 2000

## **Links between training, licensing and testing**

As indicated above, many driving schools teach new professional drivers entry-level skills that prepare them to pass driving tests, rather than teach a broad set of competencies to prepare them fully as professional drivers. It is not uncommon for driving schools to have copies of test materials to guide them in teaching the minimum knowledge and skill examiners will be testing.

Keys to ensuring that the professional drivers who are licensed to drive various types of commercial vehicles are:

- High-quality training, including adequate driving experience
- Valid tests
- Standardized testing procedures

Testing of professional drivers will be discussed in Modules 10 and 11.

However, in North America, graduated licensing is seen as one way to ensure that professional drivers have sufficient experience driving each type of vehicle prior to licensing. However, there is some evidence of a shortage of truck drivers in Canada and the United States. Increasing expectations for licensing of drivers could increase costs and establish a barrier to entry that may exacerbate this situation (Christie and Mayhew, 1999). These authors also perceive that increasing expectations for training of drivers will not increase the image of commercial driving as a profession.

## **Models for continued professional development**

In Canada, the CTHRC develops training programs, and certifies trainers and educational institutions to deliver them. The two programs for experienced drivers described below contribute to continued professional development of truckers.<sup>1</sup>

### **CTHRC Skills Upgrading Modules**

Each workshop provides an in depth review of the topic and the latest information available on the market in Canada today. Each module varies from a minimum 1/2 day to a maximum of 1 day. The content of the Module(s) is designed to be delivered in a classroom setting with a maximum of 20 drivers per session. Training is delivered by accredited Safety Trainers of Carriers, Truck Training Schools or Independent Safety Consultants can apply to deliver this program.

---

<sup>1</sup> See CTHRC web site for further information on these programs

Ten topics are available:

- Commercial Vehicle Workplace Safety
- Time Management and Trip Planning
- Inspections, Troubleshooting and Preventative Maintenance
- Backing, Coupling and Uncoupling
- Communications, Customer Relations and Driver Professionalism
- Load and Securement
- Defensive Driving
- Skid Control and Recovery
- Hours of Service Module
- Air Brake Refresher

The benefits of participating in this program are:

#### For the Drivers

- Pride, new confidence and higher morale;
- Competitive edge to keep jobs or obtain new jobs;
- Raise consciousness of the role of the driver from many aspects i.e. safety, defensive driving, accident avoidance, etc.; and
- Identification of further skills upgrading.

#### For the Carriers

- Potential savings with reduced accidents, reduced vehicle maintenance costs;
- Positively impact your carrier performance record (i.e.: CVOR,NSC)
- Improved public image for carriers and the Industry;
- Potential for supplier to the industry discounts (i.e. discussions with the insurance industry);
- A clear idea of staff training needs for the employer; and
- A motivated workforce.

### **Professional Driver Recognition Program**

This program provides drivers with the opportunity to measure their skills acquired through experience on the road against the national occupational standard. At the end of the program, through an application questionnaire drivers have the opportunity to assess themselves against the industry's expectation of the knowledge a driver should have. They will also be able to identify their skills upgrading requirements with the help of a driver feedback form built into the program. Drivers successfully completing the program will be issued a *Professional Driver Certification*.

The subject matter includes:

- Customer Relations

- Laws and Regulations
- Professional Behavior
- Tractor Trailer Documentation: Log Books, Electronic Method Logs
- Inspections - pre trip, enroute, post trip
- Defensive Driving; Load Securement
- Braking Systems
- New Technologies.
- Tailor made subjects can be added for bulk, flatbed, dangerous goods, etc.

Course duration is minimum 4.5 hr., maximum 1 day. It is also available as an individual application-self study program via correspondence or the INTERNET.

Participants must:

- Be recommended by employer or contractor
- Have at least 3 years commercial driving experience (articulated vehicle)
- Have an abstract with no more than 2 moving violations in the last 12 months, no more a cumulative of 3 violations in the last 3 years, and a zero tolerance for alcohol in the last 3 years.
- Hold a valid commercial driver license.

Slides

Slide 1

Professional Driver Training Models

- Professional Schools
- Company driving Programs
- Joint Efforts

Slide 2

Professional Driver Competencies

- Personal attributes
- Communication
- Service customers
- Driving skills
- Defensive Driving
- Compliance
- Documentation
- Trip planning
- Trip inspections
- Cargo handling/load securement

- Maintenance
- Business skills/owners

Source: CTHRC/HRDC 2000

### Slide 3

Training Issue: Experience

- Number of hours behind the wheel
- Low risk conditions

### Slide 4

Trucker Competencies:

- Demonstrate Personal Attributes
- Communicate Effectively
- Service Internal and External Customers
- Driving Skills
- Defensive Driving
- Compliance Requirements
- Documentation
- Trip Planning
- Trip Inspections
- Cargo Handling and Load Securement
- Vehicle Maintenance
- Business Skills for Owner-Operators

Source: CTHRC 2000

### Slide 5

Professional Development

- Upgrading Modules, e.g.,
  - Workplace safety
  - Time management
  - Skid recovery
  - Air brakes

Driver Recognition Programs

- Assess driver against industry expectations

Source: CTHRC/HRDC 2000