



Case Study of Mexico’s Third-Party Entry-Level Driver Training for Commercial Vehicle Operators

INTRODUCTION

To inform a Congressionally-mandated rulemaking to establish minimum driver training standards for commercial driver’s license (CDL) drivers, the Federal Motor Carrier Safety Administration (FMCSA) sponsored a case study on Mexico’s third-party entry-level driver training (ELDT) program. This case study documents lessons learned from Mexico’s experience, as of 2016. Findings were not published at that time due to the Agency’s impending publication of the ELDT Final Rule.

OVERVIEW

Most drivers in the United States must obtain a CDL before operating a commercial motor vehicle (CMV) with a gross vehicle weight rating greater than 26,000 pounds, or designed or used to transport 16 or more passengers (including the driver), or used to transport hazardous materials in a quantity requiring placards on public roadways. Individual State governments are responsible for conducting CDL knowledge and skills testing and issuing CDLs. State testing practices must comply with Federal CDL regulations. Some States conduct the testing themselves, while others have delegated the testing to third-party vendors.

The Mexican equivalent of a CDL (roughly) is a *Licencia Federal de Conductor* (LFC). In Mexico, drivers are required to obtain a LFC before operating large trucks on Federal highways. Mexico has delegated all LFC testing as a component of its Federal third-party ELDT program. Mexico’s Federal Government accredits and monitors third parties that conduct both the knowledge and skills training and testing.

THIRD-PARTY ACCREDITATION

Mexico accredits and monitors third-party LFC driver training and skill-building centers, known in Mexico as “Centros de Capacitación y Adiestramiento de

Conductores del Servicio de Autotransporte Federal y Transporte Privado,” or CECAFs. CECAFs may be operated by publicly or privately funded educational organizations or by motor carriers.

Third parties and their instructors must comply with multiple Mexican agencies’ requirements before they can be accredited as CECAFs. Within 1 year of beginning operations, third parties must also obtain International Standards Organization (ISO)-9001-2008 certification. The ISO certification serves to establish a quality management system nationwide for continuous improvement. It also serves to establish channels of communication for irregularities and fraud. Failure to maintain the ISO certification and fraud are the top reasons for canceling CECAFs.

The Mexican Federal Government audits third parties before accreditation and on an ongoing basis to monitor compliance. Driver interviews and testing may easily identify third-party non-compliance or fraud. Mexico has revoked 100 of the 330 third-party accreditations that have been granted since the third-party ELDT program was established. Of the 230 CECAFs that are currently accredited, 190 are external (run by public or private educational institutions), and 40 are internal (run by private motor carriers for hired employees). More than 100 third-party instructors are registered annually. Approximately 105,000 drivers are trained annually (roughly 60 percent are for initial LFC issuance and 40 percent are for LFC renewals).

After the Mexican Federal Government accredits a third-party LFC training center (CECAF), it is the responsibility of the third party to administer the training and testing and facilitate information transfer/LFC issuance with the appropriate Government authorities.



LFC INFORMATION SYSTEM

The Mexican Federal Government operates an information system that universally links pertinent LFC-related details, including:

- Individual driver information.
- Third-party training center delivering the training.
- LFC class curriculum certificate.
- LFC issuance information.

For each applicable LFC curriculum, CECAFs are required to report drivers' daily attendance and module completion in real-time. All modules must be satisfactorily completed before the CECAF may issue a training certificate number. This information is automatically reported to the LFC issuance system, which issues a LFC when the ELDT certificate number is reported. To reduce fraud, the system uses biometrics (e.g., photograph and fingerprint) for daily attendance reporting.

CURRICULUM AND TESTING

LFC training curricula are specific to the main LFC vehicle classes (pertaining to commercial motor vehicles):

- Class A—any bus or motorcoach.
- Class B—any truck or combination except hazardous materials (HM).
- Class C—straight truck, maximum three axles.
- Class E—any truck or combination, including HM.

For initial LFC issuance, there are specific curricula for drivers with and without experience; similarly, for LFC renewals, there are specific renewal curricula for each LFC class. For each curriculum there are four driver testing components:

- Diagnostic test at the beginning of the course to identify knowledge level and customize the content, techniques, instruction, and didactic resources required.
- Diagnostic test at the end of the course to evaluate the level of learning.
- Continuous testing during each module with questionnaires, observations, summaries, and exercises to provide feedback and correct mistakes.
- Module summary to compare the driver's results against module objectives.

EFFECTIVENESS

Mexico has not formally evaluated the safety effectiveness of its third-party ELDT and testing program. A summary of a micro-analysis conducted with stakeholders is presented in Table 1.

MEXICO/UNITED STATES COMPARISON

Table 2 provides a high-level comparison of Mexican and U.S. commercial driver licensing practices. For more details, or to read the complete case study, please visit: <https://rosap.ntl.bts.gov/view/dot/61465>

Table 1. Summary of micro-analysis of safety metrics in Mexico.

Mexico's Experience	Impact
1. From January 2005 to December 2006, the top CECAF in Monterrey used the Secretariat of Communications and Transportation (SCT) minimum training curriculum to train ~10,000 inner-city bus drivers who drove ~200 miles per day. The training was credited with a 44 percent crash reduction.	Transportation officials credited the training with 44 percent crash reduction (when bus driver was found at fault). Crashes decreased from 4,020 in 2004 to 2,255 in 2007. Two of every three crashes resulted from lane-change or "fender-bender" crashes.
2. An internal CECAF for training bus drivers uses a three-tier structure to evaluate crashes and determine proper future actions to reduce such crashes: <ul style="list-style-type: none"> – The "Support Team" goes to the crash site to collect evidence. – The "Incident Commission" analyzes the evidence and the driver's role. – An interdisciplinary "Safety Committee" synthesizes background information from management/drivers on training, medical data, driver audits, and vehicle maintenance for making decisions to prevent crashes. 	This company (referenced left) has found that the single most important factor for preventing crashes is a driver's attitude. This company offers financial incentives for driver performance; if crashes occur, drivers lose these financial incentives. Crashes are categorized by severity from 1 to 5 (1 is a broken light, 5 is total loss) and color coded for damages only, injuries, and/or fatalities. Drivers participate in workshops on crash causation, speed awareness, and highway crashes to identify causes and solutions.



Mexico's Experience	Impact
<p>3. An internal freight CECAF has identified higher crash risks associated with the following:</p> <ul style="list-style-type: none"> - Drivers younger than 24 years of age. - The first 2 years of driving (for new drivers). - Driving between the hours of 7-9 a.m. and 1-2 p.m. (when traffic peaks). 	<p>After conducting crash prevention awareness training for drivers following drivers' involvement in a crash, the company (referenced left) has observed a crash recidivism of 2 percent (98 percent of drivers trained do not crash again). They have also opted for hiring drivers who are at least 24 years old.</p>

Table 2. Comparison of Mexican and U.S. commercial driver licensing practices.

Category	Mexico: Licencia Federal de Conductor (LFC)	United States: Commercial Driver's License (CDL)
License Classes	<ul style="list-style-type: none"> • Class A: Any bus or motorcoach. • Class B: Any truck/combination except hazardous materials (HM). • Class C: Straight truck, maximum three axles. • Class D: Tourist guide taxi driver. • Class E: Any truck or combination, including HM. • Class F: Taxi driver for Federal ports and airports. 	<ul style="list-style-type: none"> • Class A: Any combination of vehicles with a gross combination weight rating or gross combination weight of $\geq 26,001$ lb, whichever is greater, inclusive of a towed unit(s) with a gross vehicle weight rating (GVWR) or gross vehicle weight of $> 10,000$ lb, whichever is greater. • Class B: Any single vehicle with a GVWR or gross vehicle weight of $\geq 26,001$ lb, or any such vehicle towing a vehicle with a GVWR or gross vehicle weight $\leq 10,000$ lb. • Class C: Any single vehicle, or combination of vehicles, that does not meet the definition of Class A or B, but is designed to transport ≥ 16 passengers, including the driver, or is placarded for HM.
Training Requirements	Formal training (completion of minimum standardized curriculum, with specified classroom and behind-the-wheel hours) is required for all LFC classes.	Formal training is not required. There is no standardized curriculum.
Who Conducts Training	Federally accredited third-party LFC training and testing centers.	State-licensed, third-party certified, or accredited CDL training schools (private or vocational); trucking companies that operate their own CDL training schools.
Length of Training	3-5 weeks (average), depending on license class and whether the driver will be operating nationally or internationally.	2-12 weeks (average), depending on the type of school (i.e., private, vocational, or company-run) and the license class being sought.
Testing Requirements	<p>Minimum curricula require four testing components:</p> <ul style="list-style-type: none"> • Diagnostic test at the beginning of the course to identify knowledge level and customize training. • Diagnostic test at the end of the course to evaluate the level of learning. • Continuous testing during each module with questionnaires, observations, summaries, and exercises to provide feedback and correct mistakes. • Module summary to compare the driver's results against module objectives. 	CDL applicants must pass a written highway safety test and a test about the different parts of a large truck. Applicants must also pass a driving skills test (this requirement is waived for military service members/ recently separated veterans with 2 years of safe driving experience in similar vehicles). There are additional testing requirements for certain endorsements (e.g., HM, school bus, etc.). Some States may have additional testing requirements beyond minimum Federal requirements.
Who Conducts Testing	Federally accredited third-party LFC training and testing centers.	States and authorized employers, training facilities, governmental departments, and private institutions.
Who Pays for Training/Testing	The Mexican Federal and State Governments and motor carrier industry have absorbed most of the training costs in exchange for the expected safety benefits. When drivers do have to contribute financially, costs range from \$80 to \$300 (average).	Drivers seeking CDL training typically pay for training out of pocket. Costs can range from \$1,000 to \$7,500 (average), depending on the type of school and license class being sought. Some companies will help cover a driver's training costs, dependent on hiring agreements.
Renewal Requirements	Drivers are required to complete LFC renewal training and testing periodically. The Class E LFC must be renewed every 3 years; all others must be renewed every 5 years.	Renewal requirements differ by State. Renewal does not necessarily require re-testing. Renewal is dependent on a driver's safety record and medical qualification.



Category	Mexico: Licencia Federal de Conductor (LFC)	United States: Commercial Driver's License (CDL)
Information Systems	Federal information system universally links LFC-related details, including individual driver information, training center delivering the training, LFC class curriculum certificate, and LFC issuance information.	States use the Commercial Driver's License Information System (CDLIS) and the National Driver Register (NDR) to exchange information about CDL drivers, traffic convictions, and disqualifications. States must notify CDLIS of license transactions within 10 days.
Government Role	The Secretariat of Communications and Transportation (SCT) establishes the minimum LFC curricula and regulates, accredits, oversees, audits, imposes sanctions on, and cancels LFC training and testing centers.	The Federal Government does not issue CDLs. States develop their own knowledge and skills tests, which must meet minimum Federal standards. States may authorize entities to administer skills tests, if Federal criteria are met.
Successes/Failures	Required completion of standardized minimum curriculum ensures that all LFC drivers understand the regulations and basic principles of safe driving; third-party system with SCT-accredited training facilities and instructors ensures consistency in training and testing methods and reduces fraud.	Lack of standardized curriculum makes it difficult to ensure CDL drivers understand the regulations and basic principles of safe driving; costs of CDL training can be a bar to entry; de-centralized auditing process may not be most effective at preventing/reducing fraud; differences in State regulations can complicate licensing in other States.

