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WHITE PAPER
Review of the United States-Mexico Cross-Border Long-Haul Trucking Pilot Program

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Abbreviations and Acronyms

Commercial Vehicle Safety Alliance	CVSA
Cross-Border Subcommittee	Subcommittee
Department of Homeland Security	DHS
Federal Motor Carrier Safety Administration	FMCSA
Federal Register Notice	FRN
Hours-of-Service	HOS
Memorandum of Understanding	MOU
Motor Carrier Safety Advisory Committee	MCSAC
North American Free Trade Agreement	NAFTA
Out-of-Service	OOS
Owner-Operator Independent Drivers Association	OOIDA
Owner-Operator Independent Drivers Association Foundation	OOFI
Pre-Authorization Safety Audits	PASA
The U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act	Iraq Supplemental Appropriations Act
U.S. Department of Transportation	DOT
U.S. Department of Transportation Office of the Inspector General	OIG
U.S.-Mexico Cross-Border Long-Haul Trucking Pilot Program	Pilot Program

Definitions

Cabotage is the act of transporting domestic freight between points in the United States by a foreign motor carrier. Federal rules prohibit Foreign-domiciled motor carriers from providing point-to-point transportation services, including express delivery services, within the United States for goods other than international cargo.

Certificate carriers are Mexico-domiciled companies owned or controlled by United States companies that transport exempt commodities beyond the border commercial zones. These carriers operate under Certificates of Registration obtained after the Truck and Bus Safety and Regulatory Reform Act of 1988 and prior to the passage of the 2002 Interim Final Rules implementing NAFTA. FMCSA estimated that 900 certificate carriers currently have operating authority, however only 271 have demonstrated recent operation.

Commercial Zones extend up to 25 miles north of the U.S. border municipalities in California, New Mexico, and Texas, and 75 miles in Arizona. For these four Border States, FMCSA did not differentiate between mileage totals within the commercial zones and those beyond the commercial zones. FMCSA estimated that there are 7,500 Mexico-domiciled motor carriers that have commercial zone registration (OP-2), and that approximately 4,000 are currently operating.

Enterprise carriers are Mexican-owned companies domiciled in the United States. These carriers operate in the United States and transport cross-border international cargo that originates in or is destined for a foreign country. These carriers are subject to all United States, State, and local laws pertaining to motor carrier operations and their vehicles. FMCSA estimated that 813 enterprise carriers currently have operating authority, of which 351 received operating authority during the Pilot Program.

Reincarnated carriers are motor carriers which attempt to operate under a new identity or as an affiliated entity in order to (1) avoid complying with an FMCSA order; (2) avoid complying with a statutory or regulatory requirement; (3) avoid paying a civil penalty; (4) Avoid responding to an enforcement action; or (5) avoid being linked with a negative compliance history.

Introduction

In January 2015, the Federal Motor Carrier Safety Administration (FMCSA) submitted a report to Congress entitled *United States-Mexico Cross-Border Long-Haul Trucking Pilot Program Report to Congress* in order to meet the requirement under Section 6901 of the U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act¹ (Iraq Supplemental Appropriations Act). Under the Iraq Supplemental Appropriations Act, FMCSA initiated the U.S.-Mexico Cross-Border Long-Haul Trucking Pilot Program (Pilot Program) to assess the safety of granting authority to Mexico-domiciled motor carriers to operate beyond the commercial zones along the U.S.-Mexico border.²

The Pilot Program was conducted between October 14, 2011 and October 10, 2014 as part of FMCSA's implementation of the North American Free Trade Agreement (NAFTA) cross-border long-haul trucking provisions and was designed to test and address the many safety concerns posed by various organizations, such as the International Brotherhood of Teamsters and the Owner-Operator Independent Drivers Association (OOIDA), as well as Congressional lawmakers. At the conclusion of the pilot, FMCSA evaluated the Mexico-domiciled carriers which received authority to operate beyond the commercial zones by utilizing common safety criteria including driver out-of-service (OOS) rates, vehicle OOS rates, brake violations, hours-of-service (HOS) violations, driver fitness violations, moving violations, safety ratings, and acute and critical violations.

Despite the questions and the concerns raised by the U.S. Department of Transportation (DOT) Office of the Inspector General (OIG), who was required by law to conduct an audit of the Pilot Program, and the Motor Carrier Safety Advisory Subcommittee (MCSAC), which was formed by FMCSA to provide oversight and monitoring of the program, the Agency concluded that "the Pilot Program successfully demonstrated that Mexican motor carriers can and do operate throughout the United States at a safety level equivalent to U.S. and Canada-domiciled motor carriers and consistent with the high safety standards the FMCSA imposes on all motor carriers authorized to operate in the United States."³

Following FMCSA's analysis, the Agency issued revised certificates of standard and provisional operating authority registration to the 13 carriers that were still participating in the program at its completion. This authority allowed the Mexico-domiciled carriers to continue to operate in the U.S. beyond the commercial zones. Moreover, FMCSA published a notice in the *Federal Register* entitled "Acceptance of Applications for Mexico-Domiciled Long-Haul Operation"⁴ immediately following the Pilot Program which announced that the DOT was accepting applications from Mexican motor carriers interested in conducting long-haul operations.

Nevertheless, despite the Agency's proclamation that the Pilot Program was a complete success, many organizations, including the Owner-Operator Independent Drivers Association Foundation (OOFI), have

¹ Pub. L No. 110-28, Title VI, Ch. 9, § 6901 (2007)

² FMCSA, *United States-Mexico Cross-Border Long-Haul Trucking Pilot Program Report to Congress*, U.S. DOT (Jan 2015), pg. 1.

³ *Ibid*, pg. 1-2.

⁴ Federal Register. 80 Fed. Reg. 21795 (January 15, 2015).

raised several questions concerning the data, the analysis, and the program itself, which FMCSA has yet to address, such as:

- The Pilot Program's small number of participants;
- The inclusion of Enterprise and Certificate carriers, as well as non-Pilot Program drivers, in the analysis;
- The data disparity in which two carriers accumulated for 81% of the inspections and 91% of the border crossings;
- The small percentage of destinations during the Pilot Program that were beyond the commercial zones;
- The disparity in enforcement actions between U.S.-based and Mexico-domiciled motor carriers; and
- FMCSA's statutory authority to establish a permanent U.S.-Mexico Cross-Border Trucking Program.

Background

In 1992, the United States and Mexico entered into an agreement to allow cross-border transportation of cargo and passengers between the two countries under NAFTA. However, because of congressional concerns regarding the safe operation of Mexican carriers in the U.S., the cross-border trucking provisions were delayed, causing Mexico to eventually file a complaint against the U.S. under the NAFTA's dispute resolution provisions. In response, an Arbitration Panel was convened and issued a subsequent report in 2001 concluding that the U.S. did breach NAFTA obligations.

In order to address the concerns regarding both NAFTA and the safety compliance of Mexico-domiciled carriers, President Bush signed the Transportation and Related Agencies Appropriation Act in 2002. Under Section 350 of the 2002 Appropriation Act, the U.S. and Mexican authorities negotiated the conditions of implementing the NAFTA cross-border long-haul operation provisions. Nonetheless, it was not until April 2007 when U.S. Secretary of Transportation Mary Peters and her Mexican counterpart signed a Memorandum of Cooperation to begin a Demonstration Project in order to assess the safety of Mexican carriers operating beyond the U.S. commercial zones.

The Demonstration Project 2007-2009

In September 2007, FMCSA officially began the Demonstration Project, and after one year, an Independent Evaluation Panel presented a report to DOT Secretary Peters which found that (1) the participation fell far short of DOT's original estimations of 100 Mexican carriers and 500 trucks operating beyond the commercial zone; (2) of the approximately 12,000 crossings, less than 15 percent were beyond the commercial zone and almost all were in Texas and California; (3) less than 1 percent of driver inspections resulted in OOS, while only 8.7 percent of vehicle inspections resulted in OOS.⁵

⁵ *U.S.-Mexico Trucking Issue White Paper*, United States-Mexico Chamber of Commerce (2011), pg 4.

The Demonstration Project continued until the 2009 Omnibus Appropriations Act, which included a provision prohibiting FMCSA from spending any additional funds on the project, was passed and signed into law. As a result of the project's early termination, the Agency was unable to conduct a complete analysis of the results or provide a report to congress. The Demonstration Project included 28 motor carriers with 98 vehicles at its completion.⁶

In response to the termination of the Demonstration Project, Mexico announced its decision to impose retaliatory tariffs on the U.S. as provided for under the 2001 NAFTA Arbitration Panel decision. The tariffs affected approximately 80 different products being exported to Mexico at an estimated annual value of \$2.4 billion. After meeting with Mexican President Calderon at the North American Leaders Summit in August 2009, President Barak Obama announced that it was the goal of his administration to fulfill the U.S.'s NAFTA commitments. Subsequently, the FY 2010 Appropriations Act excluded the prohibition of funds for the utilization on the cross-border trucking program. However, it continued to include the requirements established in Section 350 of the 2002 Appropriations Act and Section 6901 of the Iraq Supplemental Appropriations Act. In particular, the appropriation bills established the requirements for the Pre-Authorization Safety Audits (PASA), compliance reviews, license checks, Commercial Vehicle Safety Alliance (CVSA) decals, etc.⁷

After several months of negotiations, DOT Secretary Ray LaHood and Mexico Secretaría de Comunicaciones y Transportes Dionisio Arturo Pérez-Jácome Friscione signed a Memorandum of Understanding (MOU) in July 2011 resolving the longstanding dispute over the cross-border long-haul trucking provisions of NAFTA. On October 14, 2011 the Pilot Program officially began when the first Pilot Program applicant received authority and crossed the U.S.-Mexico border.

The Cross-Border Long-Haul Trucking Pilot Program 2011-2014

FMCSA developed the Pilot Program to test and demonstrate the effectiveness of its regulations governing the registration and monitoring of the Mexico-domiciled motor carriers as well as to assess the safety compliance of such carriers while they operated beyond the U.S. commercial zones. In order to participate in the Pilot Program each carrier was required to go through both security and safety vetting and the PASA, while also meeting certain driver and vehicle standards. Every applicant was required to complete the "Application to Register Mexican Carriers for Motor Carrier Authority to Operate Beyond U.S. Municipalities and Commercial Zones on the U.S. Mexico Border" (Form OP-1MX), and to submit both a "Motor Carrier Identification Report" (Form MCS-150) and a "Designation of Process Agent" (Form BOC-3).

Following the security vetting, which was conducted by utilizing the Department of Homeland Security's (DHS) database, and the safety vetting, where FMCSA reviewed relevant safety and inspection data included in the Motor Carrier Management Information System (MCMIS), the Licensing and Insurance System (L&I), and the Safety Management System (SMS) databases to identify any safety concerns. Moreover, each applicant was subjected to a PASA. A PASA required each carrier to demonstrate that it

⁶ *United States-Mexico Cross-Border Long-Haul Trucking Pilot Program Report to Congress*, pg. 5.

⁷ *Ibid.*, pg 5-6.

had (1) a controlled substance and alcohol testing program; (2) a system for complying with the HOS requirements; (3) proof of insurance or ability to obtain it; (4) records of periodic inspections of vehicles used in the U.S.; and (5) qualified drivers for operations in the U.S.⁸

The applicants were also required to progress through stages of inspections and comply with U.S. laws and regulations governing motor carrier safety, customs and immigration, vehicle registration and taxation, and fuel taxation. Once a carrier had passed all three processes, they were granted provisional motor carrier certificates of registration. However, in order to be granted permanent authority, each applicant was required to receive a "Satisfactory" rating from a compliance review before 18 months of Pilot Program operations. It is important to note that the Pilot Program carriers which also participated in the Demonstration Project were allowed to carry over their time of operation into the pilot. The following table from the OIG's final report details the various stages of operating authority for the program participants.

Table 1: Stages of Operating Authorities for the Pilot Program Participants

Pilot Program Provisional Motor Carrier Certificate of Registration	Stage 1: Participant carriers with Pilot Program provisional motor carrier certificates of registration were inspected each time they entered the United States for at least 3 months of participation or until they completed at least three inspections.
	Stage 2: After the first 3 months, participant carriers were monitored and inspected at a rate comparable to other Mexico-domiciled motor carriers that cross the United States-Mexico border until they reached a total of 18 months of participation. To proceed to stage 3, a carrier must have received a satisfactory safety rating during its compliance review and have no pending enforcement or safety improvement actions.
Pilot Program Permanent Motor Carrier Certificate of Registration	Stage 3: To obtain Pilot Program permanent motor carrier certificates of registration, participant carriers must comply with all Federal Motor Carrier Safety Regulations (FMCSR) and renew their CVSA decals every 90 days for 3 years.
Standard Motor Carrier Operating Authority Registration	Post-Pilot Program: Upon completion of the Pilot Program, pilot participants were eligible for standard motor carrier operating authority, similar to that of U.S.-domiciled motor carriers but with significant restrictions and requirements, such as limitations to international cargo and required inspection decals.
Provisional Motor Carrier Operating Authority Registration	Post-Pilot Program: Upon completion of the Pilot Program, pilot participants with Pilot Program provisional motor carrier certificates of registration were eligible to be converted to provisional motor carrier operating authority. These motor carriers must undergo a compliance review, receive a satisfactory rating, and have no pending enforcement or safety improvement actions before being considered

⁸ Office of Inspector General, *FMCSA Adequately Monitored its NAFTA Cross-Border Trucking Pilot Program But Lacked a Representative Sample to Project Overall Safety Performance*, U.S. DOT (December 2014), pg. 2.

The OIG Audit Reports

Under the Iraq Supplemental Appropriations Act, the OIG was required to (1) provide an initial review verifying that the pilot program complies with requirements set forth in Section 350 of the 2002 Appropriations Act; (2) monitor the program and provide an interim report 6 months after initiation; and (3) provide a final report within 60 days after the program's conclusion.⁹ Although each of the OIG's audits found that FMCSA generally complied with the statutory requirements, all of the reports discovered significant shortcomings with the Pilot Program.

The Initial Audit

One month after the 2011 MOU was signed by DOT Secretary LaHood and his Mexican counterpart, the OIG released their first initial audit entitled, *FMCSA Generally Complies With Statutory Requirements, but Actions Are Needed Prior To Initiating Its NAFTA Cross-Border Trucking Pilot Program*. The overall objective of the initial audit was to (1) verify whether FMCSA complied with the requirements set forth in Section 350, which included conducting PASAs for Mexico-domiciled carriers seeking long-haul operating authority; (2) determined whether FMCSA addressed language differences between Section 350(a) and its regulations that OIG identified in their initial audit of the prior Demonstration Project, and (3) identified issues that should be addressed before the Pilot Program is initiated.¹⁰

The OIG discovered in the initial audit that FMCSA did not meet the requirements related to conducting safety reviews onsite in Mexico. In particular, FMCSA had not finalized its plans nor identified the specific process that it would use to comply with the five requirements to conduct 50 percent of the PASAs and compliance reviews in Mexico. Additionally, the Agency's policy did not address where the reviews would be conducted during the Pilot Program.¹¹ Substantial findings from the initial review were as follows:

- Although FMCSA had taken positive actions to improve monitoring of Mexican drivers and trucks, it had not yet addressed certain issues for implementing the Pilot Program. Specifically, FMCSA had not (1) issued coordinated site-specific plans for checking drivers and trucks at the border, (2) established a system to verify driver and vehicle eligibility for the Pilot Program, (3) issued an implementation plan nor acquired electronic monitoring devices for use in the Pilot Program, and (4) conducted Pilot Program training for inspection personnel at the border and within the United States.
- FMCSA had not issued, for each border crossing, site-specific plans for checking drivers and trucks participating in the Pilot Program. Without site-specific plans and full coordination with Customs and Border Protection (CBP) and state inspection agencies, the risk increased that Mexican carriers would not be inspected in accordance with FMCSA's Pilot Program provisions.

⁹ Ibid., pg 1.

¹⁰ OIG, *FMCSA Generally Complies With Statutory Requirements, but Actions Are Needed Prior To Initiating Its NAFTA Cross-Border Trucking Pilot Program*, U.S. DOT (August 2011), pg. 2.

¹¹ Ibid. pg. 3.

- FMCSA had not established systems or provided guidance to its field offices, states, and CBP on how to verify Pilot Program drivers and trucks for inspection as they enter the United States and travel beyond the commercial zones.
 - Section 350(a)(10)(A) required that motor carriers, including foreign carriers, be knowledgeable about Federal safety standards and be proficient in English. Specifically, Federal rules require drivers to be sufficiently proficient in English to (1) converse with the general public, (2) understand highway traffic signs and signals, (3) respond to official inquiries, and (4) make entries on reports and records.
- FMCSA had not issued an implementation plan nor acquired electronic monitoring devices for use in the Pilot Program, despite its policy that called for providing this equipment to Pilot Program participants. FMCSA had also not developed or issued specific guidance on how Federal and state enforcement staff should use such electronic monitoring devices.
- FMCSA had not provided training to enforcement personnel that the OIG met with. According to FMCSA's April 2011 Federal Register notice, the Agency was supposed to provide ongoing training to Federal and State auditors, inspectors, and investigators on Pilot Program provision and procedures, including cabotage.

The Interim Audit

In August 2012, the OIG released their second interim report entitled *Increased Participation and Improved Oversight Mechanisms Would Benefit the NAFTA Pilot Program*. The objectives for this interim audit were to determine whether (1) the pilot program consists of an adequate and representative sample of Mexico-domiciled carriers that are likely to engage in cross-border operations beyond the United States municipalities and commercial zones on the United States-Mexico border, (2) Federal and State monitoring and enforcement activities are sufficient to ensure that participants in the pilot program are complying with all applicable laws and regulations, and (3) the Department has established sufficient mechanisms to determine whether the pilot program is adversely affecting motor carrier safety.¹²

Among the major findings of the interim report, the OIG noted that the low participation in the Pilot Program placed FMCSA at risk of not meeting its goals for providing an adequate and representative sample of Mexico-domiciled carriers and inspections necessary to assess the impact on motor carrier safety.¹³ At the time of the audit, the Pilot Program had approved only 4 motor carriers, which had completed a total of 89 inspections compared to FMCSA's objective of at least 46 carriers and 4,100 inspections. In addition, OIG stated that FMCSA's oversight mechanisms did not ensure full compliance with the requirements of the Pilot Program. Specifically, FMCSA staff did not comply with English language proficiency requirements for testing drivers on traffic and road signs during two of three PASAs that the OIG observed.¹⁴ Other findings included:

¹² OIG, *Increased Participation and Improved Oversight Mechanisms Would Benefit the NAFTA Pilot Program*, U.S. DOT (August 2012), pg. 1-2.

¹³ *Ibid.*, pg. 2.

¹⁴ *Ibid.*

- FMCSA's quality assurance personnel approved two of three PASA results before verifying that the required driver's license testing had been completed.
- A FMCSA PASA auditor made errors in determining whether one potential carrier complied with Federal drug and alcohol testing regulations by not verifying the enrollment of the carrier's 16 potential drivers. Additionally, the auditor did not investigate why the carrier's drug and alcohol statistical report contained 8 incomplete random drug tests and 2 incomplete random alcohol tests.
- FMCSA's monitoring plan did not include periodic reviews of electronic monitoring data quality and reporting accuracy.
- FMCSA delayed the development of a mechanism for detecting cabotage.

The Final Audit

In December 2014, the OIG released their final audit report entitled *FMCSA Adequately Monitored its NAFTA Cross-Border Trucking Pilot Program But Lacked a Representative Sample to Project Overall Safety Performance*. As a part of the final audit, the OIG's objectives were to determine whether (1) Federal and State monitoring and enforcement activities are sufficient to ensure that participants in the Pilot Program are in compliance with all applicable laws and regulations, (2) the Department has established sufficient mechanisms to determine whether the Pilot Program is having any adverse effects on motor carrier safety, and (3) the Pilot Program consists of an adequate and representative sample of Mexico-domiciled carriers likely to engage in cross-border operations beyond the United States municipalities and commercial zones on the United States-Mexico border.¹⁵

The OIG found that while FMCSA was able to comply with 34 distinct requirements established in Section 350(a), the Agency was not able to comply with the requirement for conducting 50 percent of the PASAs onsite in Mexico, which was one of the OIG's original recommendations in their initial audit. In particular, FMCSA conducted only 38 percent of the PASAs onsite because of the "concerns for the safety and security of personnel conducting operations."¹⁶ The audit also stated, "In some areas where motor carriers were located, the State Department warned of significant organized crime activity, kidnappings, and homicides. In light of these concerns and associated travel restrictions, FMCSA deferred the scheduling of PASAs in Mexico."¹⁷

The OIG agreed with FMCSA's conclusions regarding the safety performance of the Pilot Program's participant carriers, namely that they "performed no worse than United States and Canadian motor carriers. However, the OIG stated that "FMCSA lacked an adequate number of Mexico-domiciled pilot program carriers to *yield statistically valid findings* for the pilot program...Because the pilot program lacked an adequate number of participants, we could not determine with confidence whether the 15

¹⁵ *FMCSA Adequately Monitored its NAFTA Cross-Border Trucking Pilot Program*, pg. 2.

¹⁶ *Ibid.*, pg. 4.

¹⁷ *Ibid.*, pg. 7.

carriers are representative (*emphasis added*).¹⁸ Without being able to determine the representativeness of the 15 carriers, one cannot project the safety performance for the population of Mexico-domiciled carriers that may qualify for long-haul operating authority in the future. We are not making recommendations to improve FMCSA's oversight of the pilot program at this time, as FMCSA formally ended the pilot program on October 10, 2014.¹⁹ Other highlights of the final audit included:

- OIG identified a concern that non-Pilot Program driver inspections were included in FMCSA's total inspection count. This was only discovered after OIG witnessed FMCSA's electronic monitoring interface at Otay Mesa, CA port of entry in which a Pilot Program truck was operating without a Pilot Program approved driver. OIG discovered that over 27 percent of all inspections involved Pilot Program approved trucks operated by non-Pilot Program drivers.
- In an effort to collect inspection rate and safety performance data that could be comparable to those of non-Pilot Program carriers, FMCSA excluded inspections while a carrier was still in the first stage of the Pilot Program's provisional registration period, in which a carrier was inspected every time they crossed the border for 3-months. After the exclusion, FMCSA analyzed a total of 2,841 inspections, thereby further reducing the sample size and decreasing the statistical validity.
- During the program, 37 Mexican carriers applied for Pilot Program authority, but only 15 total carriers were granted permission to participate, and of which 2 carriers either withdrew or had their pilot program operating authority revoked, leaving only 13 participant carriers at the end of the program. While the Pilot Program participants did not raise concerns regarding safety, "the sample size was too small for us [OIG] to produce statistically reliable estimates."²⁰
- During the Pilot Program, 90 percent of the border crossings and 80 percent of the inspections conducted were attributed to only 2 carriers. "This skewed distribution of activity makes a statistical projection about the ability of Mexico-domiciled carriers to operate safely beyond the commercial zones along the United States-Mexico border unreliable."²¹ The most active carrier in the Pilot Program, which conducted 13,598 trips in the U.S., only produced 99 trips outside of the commercial zone, while just 18 of their inspections were conducted during those 99 trips.
- Of the 1.5 million miles traveled by the participant carriers, only 255,392, or 17 percent, were accrued while traveling outside the four Border States.

¹⁸ A total of 15 carriers enrolled in the Pilot Program. However, at the end of the Pilot Program, one carrier had withdrawn, and one carrier had its Pilot Program operating authority revoked, resulting in only 13 participant carriers.

¹⁹ *Ibid.*, pg. 5.

²⁰ *Ibid.*, pg. 13.

²¹ *Ibid.*

Table 2: Summary of the OIG Audit Reports

Audit	Objectives	Recommendations
<i>FMCSA Generally Complies With Statutory Requirements, but Actions Are Needed Prior To Initiating Its NAFTA Cross-Border Trucking Pilot Program.</i>	(1) Verify whether FMCSA complied with the requirements set for in Section 350, which included conducting PASAs for Mexico-domiciled carriers seeking long-haul operating authority; (2) determined whether FMCSA addressed language differences between Section 350(a) and its regulations that OIG identified in their initial audit of the prior Demonstration Project, and (3) identified issues that should be addressed before the Pilot Program is initiated.	Before initiating the Pilot Program, FMCSA should develop an action plan that should identify actions for: (1) finalizing plans for how FMCSA will comply with Section 350(a) requirements to conduct half of the PASAs and compliance reviews in Mexico; (2) issuing coordinated site-specific plans, or an alternative overall plan for coordinating with CBP and the states, to ensure that pilot program drivers and trucks are inspected at the border; (3) establishing a system to verify driver and truck eligibility for the pilot program; (4) issuing an implementation plan for using electronic monitoring devices in the pilot program; and (5) conducting pilot program training for inspection and enforcement personnel at the border and within the United States. ²²
<i>Increased Participation and Improved Oversight Mechanisms Would Benefit the NAFTA Pilot Program.</i>	determine whether (1) the pilot program consists of an adequate and representative sample of Mexico-domiciled carriers that are likely to engage in cross-border operations beyond the United States municipalities and commercial zones on the United States-Mexico border, (2) Federal and State monitoring and enforcement activities are sufficient to ensure that participants in the pilot program are complying with all applicable laws and regulations, and (3) the Department has established sufficient mechanisms to determine whether the pilot program is adversely affecting motor carrier safety.	FMCSA should: (1) Revise FMCSA's traffic and road sign testing policy and procedures to: (a) require English responses to questions about traffic and road signs, in accordance with the Federal Register requirements; (b) require testing of all 21 traffic and road signs used for the PASA test; (c) add a height clearance road sign to the traffic and road sign test; (d) and provide training and guidance on traffic and road sign testing to all enforcement officials. (2) Revise FMCSA's quality assurance procedures for PASAs to ensure that field supervisors and new entrant specialists validate the agency's verification of the Secretaría de Comunicaciones y Transportes-tested drivers and ensure the accuracy of drug and alcohol statistical summary reports and the accuracy of random drug and

²² *FMCSA Generally Complies With Statutory Requirements*, pg. 14.

		<p>alcohol testing pools before approving PASAs. (3) Revise FMCSA's pilot program monitoring plan to include proactive controls such as periodic checks of electronic monitoring data quality and reporting accuracy. (4) When appropriate program participation warrants, complete the development of mechanisms for detecting cabotage violations as called for in the electronic monitoring contract.²³</p>
<p><i>FMCSA Adequately Monitored its NAFTA Cross-Border Trucing Pilot Program But Lacked a Representative Sample to Project Overall Safety Performance.</i></p>	<p>Determine whether (1) Federal and State monitoring and enforcement activities are sufficient to ensure that participants in the pilot program are in compliance with all applicable laws and regulations, (2) the Department has established sufficient mechanisms to determine whether the pilot program is having any adverse effects on motor carrier safety, and (3) the pilot program consists of an adequate and representative sample of Mexico-domiciled carriers likely to engage in cross-border operations beyond the United States municipalities and commercial zones on the United States-Mexico border.</p>	<p>FMCSA lacked an adequate number of Mexico-domiciled Pilot Program carriers to yield statistically valid findings for the Pilot Program. We are not making recommendations to improve FMCSA's oversight of the Pilot Program at this time, as FMCSA formally ended the Pilot Program on October 10, 2014.</p>

²³ *Increased Participation and Improved Oversight Mechanisms Would Benefit the NAFTA Pilot Program*, pg. 13.

MCSAC Cross-Border Subcommittee

In August 2011, FMCSA tasked the Motor Carrier Safety Advisory Committee (MCSAC), which is a group comprised of 20 members representing motor carrier safety advocacy, safety enforcement, industry, and labor communities and is designated to provide advice and recommendations to the Administrator of FMCSA on safety programs and safety regulations, with assessing the safety record of participating Mexico-domiciled carriers in the Pilot Program. In response, MCSAC formed the Cross-Border Subcommittee (Subcommittee) to monitor the program by (1) assessing the safety record of participating Mexico-domiciled motor carriers; (2) continuing to advise FMCSA concerning designated tasks related to the Pilot Program; and (3) issue a final report addressing whether FMCSA conducted the Pilot Program in a manner consistent with the objectives outlined in the April 2011 *Federal Register* notice (FRN).

After holding six public meetings between 2011 and 2014, as well as examining information provided by FMCSA and the Administrator of Mexico's federal motor carrier agency, the Subcommittee stated, "FMCSA has achieved—or will achieve—each of the objectives outlined in the April 2011 and subsequent *Federal Register* notices, with the exception of...a caveat...In summary, the Subcommittee concludes that FMCSA has done what the Agency has said it will do as part of the pilot program. However, the Subcommittee questions whether the quantity and quality of the data collected from carriers participating in the program is sufficient to draw an appropriate conclusion about the Pilot Program. As the majority of inspection and violation data was obtained from four Mexico-domiciled carrier Pilot Program participants that drove primarily within the commercial border zones, the data appears insufficient to determine whether Mexican-domiciled motor carriers generally operating beyond the commercial zones would have similar safety records as U.S.-domiciled motor carriers.²⁴" The following table highlights the Subcommittee's comments.

Table 3: Summary of the Subcommittee's Comments

Federal Register Notice Objectives	Subcommittee Comments
April 13, 2011 Federal Register Notice Objectives	
Pilot Program Description	While the vast majority of vehicles were inspected at each border crossing during Stage 1, FMCSA acknowledged that not all vehicles were inspected.
PASA	The Subcommittee believes that each of the PASA-related objectives has been met but has concerns about the lack of disclosure of affiliated motor carriers by applicants in the PASA process.
Monitoring, Oversight, and Enforcement	Upon review of the ELD data, some violations were noted, which were largely form and manner violations. All ELD data should have required annotations.
List of FMCSRs and laws for which	FMCSA was unable to get copies of the participant drivers'

²⁴ MCSAC, *Oversight of the Long-Haul Cross Border Trucking Pilot Program Subcommittee Report to the MCSAC*, FMCSA (November 2014), pg. 1

FMCSA will Accept Compliance with a Corresponding Mexican Law or Regulation	records from individual Mexican states
Program Evaluation	The Subcommittee is concerned that the data obtained during the Pilot Program is insufficient to evaluate the safety performance of the actual Mexican CMV carriers that might operate in the U.S. moving forward. Only 5 percent of inspections were conducted beyond the commercial zones.
Representation of Data from the Pilot Study	Most data obtained in the program was obtained from a few pilot participants.
July 8, 2011 Federal Register Notice	Objectives
Equivalency of U.S.-Mexico Laws and Governing Safety	FMCSA has attempted to review drivers' Mexican State CDL records for violations in a personal vehicle that would result in a suspension or revocation in the U.S., but FMCSA cannot obtain this information.
Statistical Validity	Data collected and provided to the Subcommittee appears to be insufficient for analysis. After noting specific flaws in the collected data, the Subcommittee stated that they were concerned that the number of inspections conducted throughout the Pilot Program (although greater than the target number of inspections) is insufficient to evaluate the program.

The Pilot Program Results

FMCSA conducted the Pilot Program between October 14, 2011 and October 10, 2014, during which 37 Mexico-domiciled motor carriers applied for authority to participate. However, only 15 motor carriers were granted Pilot Program operating authority, and of which, 2 carriers did not complete the program, which resulted in just 13 carriers obtaining operating authority registration certificates at the completion of the Pilot Program. Another 21 carriers had their applications either withdrawn or dismissed, including 3 motor carriers that were rejected after failing the DHS security review. Additionally, 1 carrier ended the Pilot Program while still awaiting operating authority. Following a quick analysis of all 37 applicants, it is important to note that the Pilot Program generated only a 35 percent success rate. OOFI is concerned whether a similar success rate can be extrapolated for all future applicants.

Table 4: Mexico-Domiciled Carriers without Operating Authority

Carrier Name (dba)	USDOT No.	Status of Application	Reason
Aguirre Ramos Jorge Luis	1286830	Withdrawn	Not given
Akemigabby Transport (Figueroa Robles Gabriel)	2301851	Dismissed	Operated CMV in interstate and foreign commerce outside the boundaries of a commercial zone
Amador Valdez	998139	Dismissed	Failed Department of Homeland Security screening process

Autotransportes Libre Comercio Sa De Cv	1189128	Dismissed	Not given
Especializados Willie Sa De Cv	2295065	Withdrawn	Withdrawal because the carrier's primary business involves oversize cargo
Jose Luis Hernandez Avila	1658186	Dismissed	Operated CMV in interstate and foreign commerce outside the boundaries of a commercial zone
Las Transport (Gerardo Antonio Smith Sarabia)	2294430	Dismissed	Result of failing the required security screening
Medimexico S De RI De Cv	626455	Dismissed	Twice operated CMVs in interstate and foreign commerce outside the commercial zone boundaries
Montemayor Espinoza Trucking	555258	Withdrawn	Not Given
Nature Flavor Produce S De RI De Cv	2120188	Withdrawn	Not given
Ricardo Herrera Bolanos	2358460	Withdrawn	Not given
Road Machinery Co Sa De Cv	2091627	Withdrawn	Not Given
Transmex, Inc. Sa De Cv	710381	Dismissed	Received a "Conditional" safety rating during a compliance review
Transportes Divalo (Josue Ivan Rodriguez Angulo)	1816618	Dismissed	Failed Department of Homeland Security's screening process
Transportes Grihop (Luis Edmundo Grijalva Gamez)	1598518	Dismissed	Operated CMV in interstate and foreign commerce outside the boundaries of a commercial zone
Transportes Impacto (Adriana De Leon Amaro)	2117609	Failed	Operated CMV in interstate and foreign commerce outside the boundaries of a commercial zone
Transportes Julian Villa (Maria Isabel Mendivil Velarde)	1548345	Dismissed	Did not disclose two affiliated companies and had a poor safety history, including 51 non-English speaking driver violations
Transportes Mor Sa De Cv (Jorge Luis Cardena Romo)	555687	Failed	Lack of testing program for alcohol and controlled substances
Transportes Unimex Sa De Cv	1739863	Dismissed	FMCSA discovered patterns of non-compliance
Trinity Industries De Mexico S De RI De Cv	610385	Withdrawn	Internal issues
Y&R Fashion Mex S De RI De Cv	1678162	Dismissed	Operated CMV in interstate and foreign commerce outside the boundaries of a commercial zone

It is important to note that FMCSA included the data from all 15 carriers which received permanent operating authority during the Pilot Program regardless of the 2 carriers which either withdrew from the program or had their authority revoked. Overall, these 15 Mexico-domiciled carriers operated with 71 trucks and 56 drivers, and incurred 28,225 crossings, 5,545 inspections, and 1,519,022 miles traveled over the 3-year period. After compiling the results, OOFI noted that this equates to an average of 53.8 miles per crossing, which can hardly be considered long-haul.

Table 5: Mexico-Domiciled Carriers with Operating Authority

Carrier Name	US DOT No.	No. of Vehicles	No. of Drivers	No. of Crossings	No. of Inspections
Transportes Olympic	555188	5	5	352	287
Moises Alvarez Perez	677516	1	1	8	8
Transportes Del Valle De Guadalupe Sa De Cv	2208377	1	1	497	107
Servicios Refrigerados Internacionales Sa De Cv	1052546	1	3	168	36
Higienicos Y Desechables Del Bajio Sa De Cv	710491	1	1	9	8
Jose Guadalupe Morales Guevara Dbá Fletes Morales	683409	1	3	209	58
Grupo Behr	861744	1	3	576	61
GCC Transporte Sa De Cv	650155	4	6	5,528	1,393
Transportation And Cargo Solutions	779973	6	9	6	4
Servicio De Transporte Internacional Y Local Sa De Cv	557341	30	23	20,102	3,080
Transportes Monteblanco Sa De Cv	1059694	2	6	390	353
Ram Trucking Sa De Cv	2063285	1	1	5	4
Importaciones Y Distribuciones Latin America Gami Sa De Cv	2448536	1	1	65	57
Sergio Tristan Maldonado Dbá Tristan* Transfer	2348928	0	0	60	34
Baja Express Transportes Sa De Cv*	2194257	0	0	250	55
		55	53	28,225	5,545

*Carriers were not operating as of October 10, 2014. Therefore, no drivers and vehicles are listed. However, they did have previous crossings and inspections

Table 6: Miles Traveled during Pilot Program

Location	Miles per week	Total
Southern Border States	11,614	1,263,630
Non-Border States	2,119*	255,392
Total	13,733	1,519,022

*A single long-haul carrier with just one truck averages more per week

FMCSA's Report to Congress and Pilot Program Concerns

In January 2015, FMCSA submitted a report to Congress entitled *United States-Mexico Cross-Border Long-Haul Trucking Pilot Program Report to Congress* in which the Agency concluded that “the Pilot Program successfully demonstrated that Mexican motor carriers can and do operate throughout the United States at a safety level equivalent to U.S. and Canada-domiciled motor carriers and consistent with the high safety standards the FMCSA imposes on all motor carrier authorized to operate in the United States.²⁵” Nevertheless, OOFI's analysis of the Pilot Program is in stark contrast to FMCSA's subsequent report. Specifically, OOFI found fault in the program's statistical validity as well as FMCSA's execution of the program.

In the laws of science and statistics, validity refers to whether a study is able to draw appropriate conclusions that both correspond and agree with the real world, thus in order for a study to be considered scientifically valid, the conclusions must rely on mathematical and statistical laws. Although there are different types of statistical validity, such as internal validity, construct validity, and external validity, perhaps the most important, and the least considered, is statistical conclusion validity which ensures that the conclusions drawn from the data sets are actually correct and reasonable. Therefore, statistical conclusion validity involves the utilization of adequate sampling procedures, appropriate statistical test, and reliable measurement procedures.^{26, 27}

One of the most common and primary threats to statistical conclusion validity is low statistical power. In the laws of statistics, power is defined as the probability of correctly rejecting a null hypothesis²⁸ when it is false. Thus, studies with low power have a high probability of incorrectly accepting the null hypothesis, which is called a type II error, meaning that the study finds no difference when one exists. However, type II error can also be used interchangeably with type I error which occurs when the study finds a difference or correlation when none actually exists. Low power occurs when the sample size of the study is too small given other factors involved.

For an example, FMCSA's analysis of the 15 Pilot Program participants found that the carriers had safety records that were equal to or better than the national average for U.S. and Canadian motor carriers operating in the United States.²⁹ Statistical conclusion validity refutes however the Agency's ability to compare inspection data and OOS rates of 15 Mexico-domiciled carriers, which accumulated 5,545 inspections, with inspection data and OOS rates for over 500,000 U.S. carriers, which had incurred approximately 14.4 million inspections over the length of the program according to the OIG.³⁰

²⁵ *United States-Mexico Cross-Border Long-Haul Trucking Pilot Program Report to Congress*, pg. 1-2.

²⁶ J.R. Cohen and M.E. Swerdlik, *Psychological testing and assessment (6th edition)*, McGraw-Hill (2004).

²⁷ T.D. Cook et al., *Quasi-experimentation: Design & analysis issues for field settings*. Houghton Mifflin (1979).

²⁸ A null hypothesis refers to a general statement or default position that there is no relationship between two measured groups.

²⁹ *Report to Congress*, pg. 1.

³⁰ *FMCSA Adequately Monitored its NAFTA Cross-Border Trucking Pilot Program*, pg. 10.

Additionally, the OIG stated in their final audit that 27 percent, or 1,525 of the 5,545 inspections incurred during the program involved Pilot Program-approved trucks which were driven by non-Pilot Program drivers operating within the commercial zones. If removed, the Pilot Program participants yielded 4,309 inspections. While FMCSA did exclude the non-pilot program drivers from that analysis of the driver OOS rates, Agency officials explained to the OIG that they wanted to include more data on the operational condition of Pilot Program trucks, including those operated by non-Pilot Program drivers.³¹

Furthermore, it is also significant to note that in FMCSA's analysis, the Agency excluded all inspections that were conducted while a participant carrier was still operating in stage 1 of the program. Stage 1 required all carriers to be inspected each time they crossed the border for at least 3-months [for more information concerning the various stages, please refer to Table 1 of this report]. After this exclusion, FMCSA was left to analyze a total of 2,841 inspections, thereby further decreasing the already small sample size of the program.³²

In the April 2011 FRN, FMCSA calculated that the program would require at least 46 participating carriers and 4,100 inspections in order to sufficiently detect differences in violation rates between Mexican carriers and U.S. and Canadian-domiciled carriers. While the program did achieve more than 4,100 inspections, the Agency's analysis only included 2,841 inspections; thereby the analysis did not achieve FMCSA's stated goals. The Pilot Program also fell far short of the target number of 46 carriers, as it concluded with only 13. Moreover, at the time when FMCSA presented the collected data to the Subcommittee, which included only 5,046 inspections, the Subcommittee commented that the vast majority, or 81.5 percent, of the inspections were Level III inspections, which are driver only. The Subcommittee's report detailed a number of other specific flaws in the collected data, such as:

- Only 5 percent of the cross-border trips (1,150 out of 20,918) involved a CMV that travelled beyond the border zone;
- Of the 1,150 trips involving participating trucks with destinations beyond the border zone, 728 safety inspections were conducted, and all but 9 of these inspections were conducted at the border; and
- Mileage data collected in the program is insufficient to render any valid statistical analysis regarding the crash rate.

Finally, to further complicate the statistical conclusion validity of the Pilot Program and FMCSA's subsequent report to Congress, 91 percent of all crossings and 81 percent of all inspections were accrued by just 2 participant carriers, who also represented over half of the vehicles and drivers included in the program. Moreover, 4 carriers had less than 10 crossings and inspections for the duration of the pilot. An amalgamation of these facts led the Subcommittee to question both the quantity and the quality of the data collected, and caused the OIG to state simply, "FMCSA lacked an adequate number of Mexico-domiciled pilot program carriers to yield statistically valid findings for the

³¹ Ibid., pg. 11.

³² Ibid., pg. 9.

pilot program. A more comprehensive review of the reliability and validity of the data is located in Appendix B.

Chart 1: Total Number of Crossings by Participant Carriers

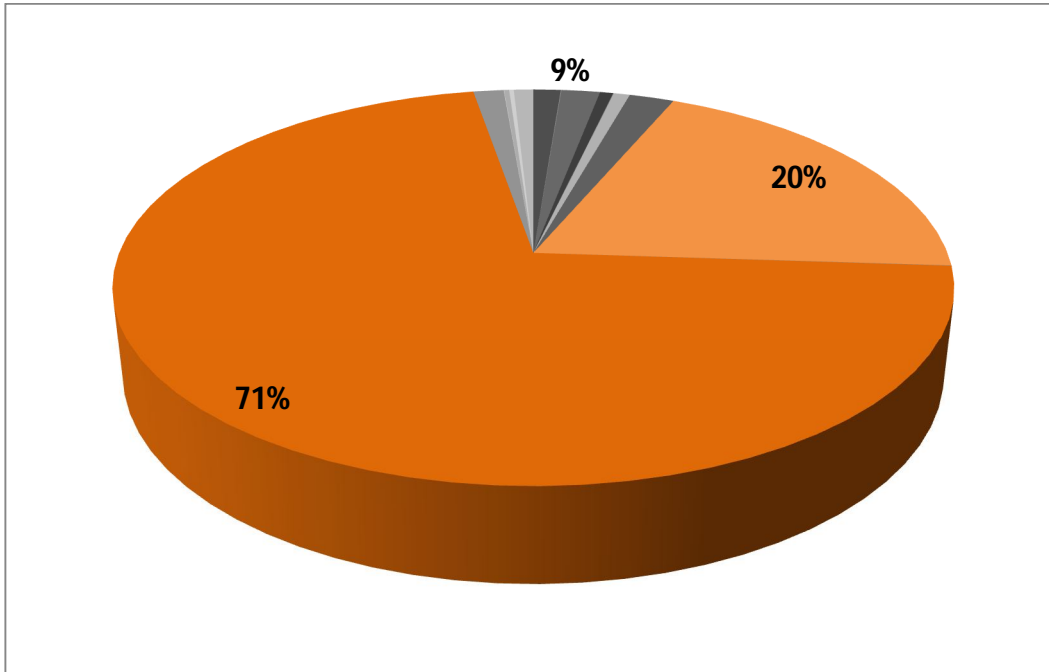
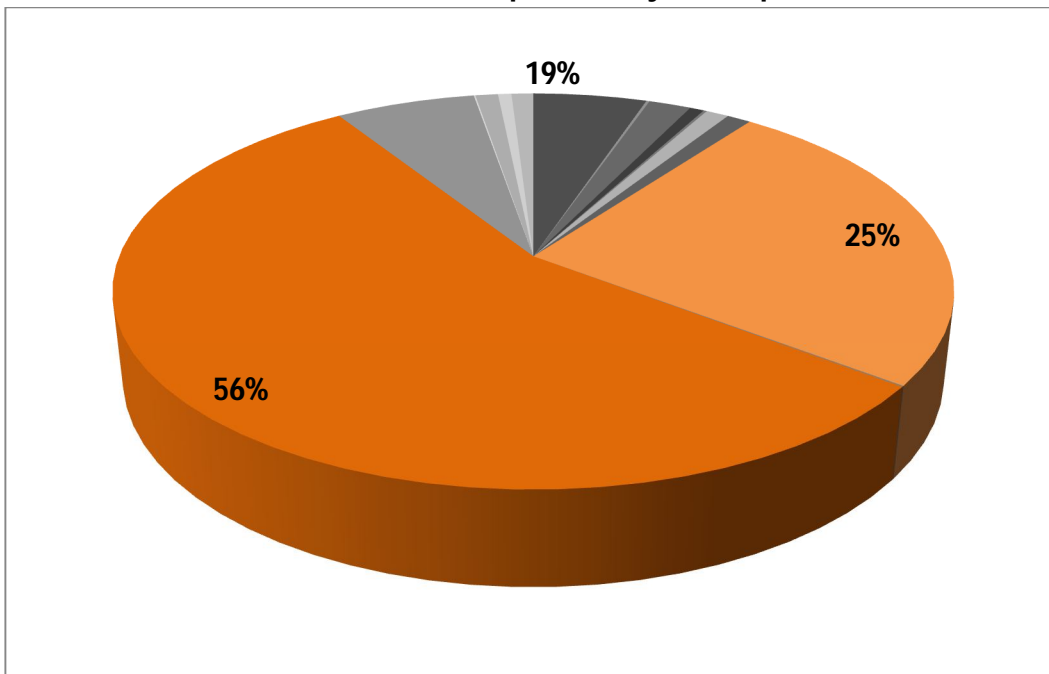


Chart 2: Total Number of Inspections by Participant Carriers



FMCSA responded to the OIG’s comment by stating, “With respect to the representativeness of the pilot carrier safety performance data, there are a limited number of companies that would profit from

transporting goods beyond the commercial zones, and fewer that would have established business relationships that would support transportation beyond the border states.³³ Nevertheless, according to the April 2011 FRN, the Agency initiated the Pilot Program “to test and demonstrate the ability of Mexico-based motor carriers to operate safely in the United States beyond the municipalities and commercial zones along the United-States border.³⁴” Whether or not a limited number of Mexico-domiciled carriers would profit from the program was not the focus of the pilot. Instead, it was ability of Mexican carriers to operate safely beyond the commercial zones.

In addition to the participant carriers, FMCSA included as part of their analysis the safety records of Enterprise and Certificate carriers for the same time period as the pilot in order to supplement the data. As a result, FMCSA stated that they “examined safety data from a population of more than 1,000 Mexico-domiciled (Certificate) or Mexican-owned (Enterprise) motor carriers that conducted long-haul transportation beyond the commercial zones during the Pilot Program period. This included 351 Enterprise carriers that received authority during the same 3-year period.³⁵” Although the use of such data was included in the April 2011 FRN, it is again important to remember that the pilot was conducted in order to test and demonstrated the ability of Mexico-based carriers to operate safely beyond the commercial zones. However, Enterprise carriers, while Mexican owned, are not domiciled or based in Mexico, but are for all intents and purposes U.S. carriers. Therefore, they should not have been included in the Agency’s report. An exclusion of Enterprise carrier data would leave FMCSA with 260 Certificate carriers that were actually in operation at the time of the pilot study.

Regardless of FMCSA’s inclusion of Certificate and Enterprise carriers, OOFI has demonstrated previously in a white paper entitled, *Are Enterprise Carriers More Safe than United States-based Carriers: Fact or Fiction* (Appendix A), that Mexican carriers’ inspections and OOS rates cannot be compared with that of U.S.-based carriers because these different groups are not held to the same set of standards, meaning that violations that usually result in a driver or vehicle being placed OOS do not always result in an OOS violation for Mexican and Enterprise carriers.

For example, there is a large disparity between U.S.-carriers and Mexico-domiciled and Enterprise carriers for both non-English speaking drivers and drivers that are unable to understand highway traffic signs and signals in the English language being placed OOS. In April 2005, the CVSA, which is the an international not-for-profit organization comprised of local, state, provincial, territorial and federal motor carrier safety officials,³⁶ added a criteria that allowed enforcement officers to place a driver who could not speak or understand English while in the United States, out-of-service. The criteria stated:

“In recognition of the three countries’ language differences, it is the responsibility of the driver and the motor carrier to be able to communicate in the country in which the driver/carrier is

³³ Ibid., pg. 22.

³⁴ FMCSA, *Pilot Program on NAFTA Long-Haul Trucking Provisions*, U.S. DOT (April 2011).

³⁵ *FMCSA Adequately Monitored its NAFTA Cross-Border Trucking Pilot Program*, pg. 22.

³⁶ <http://www.cvsa.org/about/index.php>

operating so that safety is not compromised. Driver is unable to communicate sufficiently to understand and respond to official inquiries and directions. ... Place driver out of service.³⁷

OOFI broke down the OOS rates reported by FMCSA that appears to show a higher level of regulatory compliance by Mexico-domiciled and Enterprise carriers than their U.S. counterparts. However, the assertion hinges on an inconsistent application of out-of-service orders on U.S. motor carriers and Mexico-domiciled motor carriers. The following table demonstrates that U.S.-domiciled carriers are held to a higher standard than the other types of carriers.

Table 7: Driver OOS Violation Rates

Violation Description	United States		Mexico		Enterprise	
	Viols.	OOS Percent	Viols.	OOS Percent	Viols.	OOS Percent
Driver Must Be Able To Understand Highway Traffic Signs And Signals In The English Language	225	27.11%	3,294	0.03%	12	0.00%
Driving beyond 11 hour driving limit in a 14 hour period. (Property Carrying Vehicle)	26,957	44.16%	135	26.00%	104	22.12%
Driving beyond 14 hour duty period (Property carrying vehicle)	50,122	43.01%	210	24.13%	156	35.90%
Non-English Speaking Driver	4,635	70.54%	82,841	0.07%	840	4.40%
Requiring Or Permitting Driver To Drive After 14 Hours On Duty	4,414	42.22%	95	16.84%	17	17.65%

While FMCSA proclaimed that the Pilot Program demonstrated that Mexico-based motor carriers operate as safe, or better, than U.S.-based motor carriers, the data from which the Agency has drawn their conclusions is not scientifically valid, as confirmed by the OIG, the Subcommittee, and OOFI. Specifically, the program does not meet the adequate sampling procedures in order to agree with the requirements for statistical conclusion validity, or in other words, the sample size is too small and contains too many flaws to be considered reliable.

Furthermore, although FMCSA attempted to evaluate the ability of Mexican carriers to operate safely outside of the commercial zones, the Agency did so by utilizing data that was primarily incurred within the commercial zone. Therefore, FMCSA should have included as part of their evaluation a comparison of Mexico-domiciled carriers with U.S.-domiciled carriers that operated within the Border States (i.e. Arizona, California, New Mexico, and Texas).

In August 2015, OOFI obtained records from the MCMIS database which included information on the Certificate, Enterprise, and Pilot Program carriers that FMCSA utilized as part of their analysis. Utilizing this data, OOFI evaluated the OOS rates of the Mexican carriers with that of U.S.-based carriers operating within Arizona, California, and Texas. New Mexico was not included as part of the evaluation because there was simply not enough data. Table 8 below demonstrates that within the commercial

³⁷ Mark H. Redding, "Non-English speaking drivers can be put OOS in the U.S.," *Landline Magazine* (2005).

zones, Certificate, Enterprise, and Pilot Program carriers performed worse on average than U.S.-domiciled carriers.

Table 8: OOS Rates of Mexico-domiciled and U.S.-domiciled carriers within the Commercial Zones

State	U.S. Based Carriers		MX Carriers*	
	Vehicle OOS	Driver OOS	Vehicle OOS	Driver OOS
Arizona	18.5%	13.3%	21.5%	1.7%
California	16.1%	1.6%	20.5%	2.6%
Texas	23.1%	4.9%	20.5%	12.2%

*Consists of Certificate, Enterprise, and Pilot Program carriers

Administration of the Pilot Program

FMCSA developed the Pilot Program not only to assess the safety of Mexico-domiciled carriers operating beyond the U.S. municipalities, but also to test and demonstrate the effectiveness of its regulations governing the registration and monitoring of the Mexican carriers. The OIG concluded that FMCSA had established sufficient monitoring and enforcement activities to comply with the 34 distinct requirements set forth in Section 350(a) of the 2002 Appropriations Act, while the Subcommittee found that FMCSA had completed all the processes that the Agency said it would do as part of the Pilot Program. Nonetheless, OOFI discovered a number of discrepancies while evaluating the Agency's ability to adequately administer and enforce the program into the possible future.

For example, following the conclusion of the Pilot Program, OOFI questioned whether FMCSA can adequately and properly conduct the necessary security and safety vetting of Mexico-domiciled carriers interested in obtaining authority to operate beyond the commercial zones, especially considering that the U.S. State Department issued warnings concerning significant organized crime activity, kidnappings, and homicides in Mexico which prohibited FMCSA from completing the requirement to conduct 50 percent of the PASAs onsite in Mexico.

Additionally, not only did the OIG note failures produced by FMCSA's quality assurance personnel and PASA auditors regarding the verification of required driver's license testing and Federal drug and alcohol testing, but OOFI discovered that a number of program participants had undisclosed affiliates. Although the Agency eventually caught and corrected all discrepancies, there is a very real danger that some carriers initially and purposely omitted their affiliate relationships.

For example, despite the substantial evidence which indicated that Sergio Tristan Maldonado (Tristan Transfer) was a reincarnated carrier, as the carrier had applied for the pilot while utilizing the same 3 drivers and 3 power units employed by an undisclosed affiliate, Maria Higinia Tristan Maldonado, who exceeded the CSA safety intervention threshold for both the Driver Fitness and the Vehicle Maintenance Behavioral Analysis and Safety Improvement Categories (BASICs), FMCSA granted Tristan Transfer operating authority in 2013. Tristan Transfer's authority was revoked following a compliance review in which the Agency noted 13 violations, including using a driver before the motor carrier has received a

negative pre-employment controlled substance test result, failing to investigate a driver's background, requiring or permitting a driver to drive after the end of the 14th hour after coming on-duty, and requiring or permitting a driver to drive after having been on duty 70 hours in 8 consecutive days.

FMCSA further intensified OOFI's concerns when the Agency released a report to the Subcommittee stating that only 2 of the 15 participant carriers did not disclose any affiliates, 1 of which had no affiliate. However, as OOFI examined and monitored the Pilot Program throughout its duration, OOFI noted that there were in fact 8 additional carriers which did not properly disclose their affiliates at the time of their application. Although FMCSA has painted the undisclosed affiliates as a non-issue, it invites the question of whether the Agency is conducting due diligence in their safety and security vetting procedures. After FMCSA recognized that Tristan Transfer had an undisclosed affiliate, the Agency allowed the carrier to send in a letter acknowledging the affiliation. Tristan Transfer, whose behavior matches the very definition of a reincarnated carrier, merely stated that they had been employed by their sister. When Transportes Monteblanco was discovered to have an undisclosed affiliate, they mailed a letter to FMCSA explaining that they misunderstood the question.

Table 9: Mexico-Domiciled Carrier Affiliations

Carrier	Applicant Identified Affiliate?	Name / DOT # of Affiliate	Relationship
Transportes Olympic	Yes	OMC Carrier, LLC (#1281837), Fernando Paez Transport, Inc. DBA Olympic Transport (#535886)	Company executive same
Moises Alvarez Perez	No	None	N/A
Baja Express	Yes	Carlos Tirado Valdez Baja Express (#1636580)	Company executive same
Transportes del Valle	Yes	Jose Alejandro Torres Osorio Transportes Del Valle De Guadalupe (#1902901)	Company executive same
SRI*	No	SRI Trucking, LLC (#1614866)	Company official same
Higienicos y Desechables*	No	Comercializadora Mexicana Trading Inc. (#1540294)	Company principal same
Jose Guadalupe Morales dba Fletes Morales	Yes	Jose Guadalupe (#1217935)	Company official same
Grupo Behr*	No	Logix Transport Inc. (#2210821), Pacific Customs Services (FF#9476-P), Maria Guadalupe Carrillo Cervantes (#1553781)	Company official same; use of vehicle and/or driver
STIL*	No	International Transportation Services, Inc. (#2257332)	Company principal(s), mailing addresses same
Ram Trucking*	No	Zaro Transportation LLC (#1741743), Auto Transportes Zaros (#1421433)	Company principals same

GCC*	No	American Cement Co., Inc. (#269815); GCC Dacotah Inc DBA GCC of America (#1747865), CRM Acquisitions, Inc. DBA Consolidated Ready Mix, Inc. (1451833), GCC Alliance Concrete, Inc. (229282), Alliance Transportation, Inc. (448872)	Corporate parent owns cement producing plants in US states
Sergio Tristan Maldonado DBA Tristan Transfer	No	Maria Higinia Tristan Maldonado DBA Trujillo's Transfer (#1771021)	Sister of principal
TRACSO*	No	XIM Enterprises LLC (#2340741)	Company president same
Transportes Monteblanco*	No	Mg Alimentos Inc. (#1442274), Transportes Monteblanco (#1871386)	Company executive same
IDLA	Yes	Hector Serrano Lee DBA Importaciones y Distribuciones Latina America Gami (#1983616)	Company principals father-son relationship; address same

*FMCSA originally had the carrier identified as properly disclosing their affiliation

Furthermore, it appears that FMCSA would not have properly informed the public concerning such issues as the utilization of non-Pilot Program drivers operating pilot-approved trucks, the small percentage of participant carriers' destinations, inspections, and miles traveled occurring outside the commercial zones, and undisclosed affiliates, had it not been for the OIG and the Subcommittee. Undoubtedly, these issues raise concerns about FMCSA properly administering and enforcing the Pilot Program into the possible future.

In addition to the security and vetting issues, OOFI is also concerned with FMCSA's ability to properly monitor the program during the future, and specifically if the Agency is capable of adequately assessing the safety records of the program's participants. In August 2015, OOFI obtained records from the MCMIS database which included information on the Certificate, Enterprise, and Pilot Program carriers that FMCSA utilized as part of their analysis. As part of its research, OOFI discovered a number of discrepancies which question FMCSA's current monitoring procedures. For example, although Certificate carriers are domiciled in Mexico and Enterprise carriers are domiciled in the United States, FMCSA's database included Certificate carriers based in the U.S. and Enterprise carriers based in Mexico. While this may appear to be a small oversight, OOFI believes that it is an indication of a much larger problem, namely that inaccurate and incomplete data within MCMIS has and will affect the Agency's ability to evaluate safety.

For example, each of the 7 individual BASICs, Unsafe Driving, Crash Indicator, HOS Compliance, Vehicle Maintenance, Controlled Substances and Alcohol, Hazardous Materials Compliance, and Driver Fitness, require a certain number of inspections in order to generate a percentile score. While statistical experts consider any ratio measure that is based upon fewer than 20 observations, or inspections, unreliable, FMCSA requires at least 3 inspections for both the Unsafe Driving and the HOS Compliance BASICs, while the Vehicle Maintenance and the Driver Fitness BASICs need at least 5 inspections. Nonetheless, while

many of the Mexican carriers had incurred enough inspections to generate a score, they did not officially have a percentile score even though many had above average OOS rates.

Table 10: Mexican Carriers BASICS compared with Inspections and OOS Rates

No. of Inspections	Vehicle OOS	Driver OOS	Unsafe Driving	HOS	Vehicle Maint	Subs & Alcohol	Driver Fitness
10	25.0%	0.0%	0%	0%	L5*	0%	0%
9	33.3%	12.5%	0%	L3†	L5	0%	L5
16	25.0%	0.0%	0%	0%	L5	0%	0%
9	75.0%	0.0%	0%	0%	L5	0%	0%
10	22.2%	0.0%	0%	0%	L5	0%	0%
13	25.0%	0.0%	L3	0%	L5	0%	0%
11	16.7%	0.0%	0%	0%	L5	0%	0%
8	33.3%	0.0%	0%	0%	L5	0%	0%
6	16.7%	0.0%	0%	0%	L5	0%	0%
8	16.7%	0.0%	0%	0%	L5	0%	0%
8	80.0%	0.0%	0%	0%	L5	0%	L5
6	25.0%	16.7%	0%	0%	L5	0%	L5
24	26.7%	0.0%	0%	0%	L5	0%	L5
12	25.0%	0.0%	0%	0%	L5	0%	0%
11	33.3%	0.0%	L3	L3	L5	0%	0%
8	0.0%	11.1%	0%	L3	L5	0%	0%
23	21.4%		0%	0%	NO‡	0%	0%
16	18.2%	0.0%	0%	0%	L5	0%	0%
11	25.0%	0.0%	0%	0%	L5	0%	0%
6	25.0%	0.0%	0%	0%	L5	0%	0%
6	25.0%	0.0%	0%	0%	L5	0%	0%
31	14.3%	3.1%	0%	NO	L5	0%	0%
15	14.3%	0.0%	0%	0%	L5	0%	0%
7	20.0%	14.3%	0%	L3	L5	0%	L5
10	42.9%	0.0%	0%	L3	L5	0%	0%
12	25.0%	10.0%	0%	L3	L5	0%	L5
13	50.0%	0.0%	0%	0%	L5	0%	0%
10	22.2%	0.0%	0%	L3	L5	0%	0%
8	33.3%	0.0%	0%	0%	L5	0%	0%
12	50.0%	0.0%	0%	0%	L5	0%	0%
12	100.0%	10.0%	L3	L3	L5	0%	L5
9	33.3%	0.0%	0%	0%	L5	0%	0%
12	25.0%	0.0%	0%	0%	L5	0%	0%
15	16.7%	0.0%	L3	L3	L5	0%	0%
13	25.0%	8.3%	0%	L3	L5	0%	0%

16	11.1%	7.1%	0%	L3	L5	0%	0%
16	7.1%	5.9%	0%	L3	L5	0%	0%
9	20.0%	0.0%	0%	0%	L5	0%	0%
8	33.3%	0.0%	0%	0%	L5	0%	0%
19	33.3%	0.0%	0%	L3	L5	0%	0%
21	23.1%	0.0%	0%	0%	L5	0%	0%
14	20.0%	0.0%	0%	0%	L5	0%	0%
15	42.9%	0.0%	0%	L3	L5	0%	0%
17	33.3%	0.0%	0%	L3	L5	0%	0%
9	20.0%	0.0%	0%	0%	L5	0%	0%
12	28.6%	0.0%	0%	L3	L5	0%	0%
19	30.0%	11.8%	0%	L3	L5	NO	0%
11	46.2%	0.0%	0%	0%	L5	0%	0%
11	33.3%	0.0%	0%	0%	L5	0%	0%
15	20.0%	6.7%	0%	L3	L5	0%	L5
9	50.0%	0.0%	0%	L3	L5	0%	0%
22	18.8%	4.5%	0%	0%	L5	0%	L5
11	37.5%	0.0%	0%	0%	L5	0%	0%
6	20.0%	0.0%	0%	0%	0%	0%	0%
6	33.3%	0.0%	0%	L3	L5	0%	0%
8	14.3%	10.0%	0%	L3	L5	0%	0%
48	29.0%	2.7%	0%	NO	NO	0%	0%

†According to SMS, the carrier had less than 3 (L3) inspections and could not generate a score

*According to SMS, the carrier had less than 3 (L3) inspections and could not generate a score

‡According to SMS, the carrier had no violations (NO) within the past year

According to the regulations, FMCSA requires that all entities under its jurisdiction update their MCS-150 every two years. Failure to complete the biennial update is supposed to result in the deactivation of an entity's USDOT number and may result in civil penalties of up to \$1,000 per day, not to exceed \$10,000. Nevertheless, 25 percent of the 191 active Certificate carriers and 18 percent of the 625 active Enterprise carriers in the Agency's database had either outdated vehicle miles traveled (VMT) or had no mileage listed at all. OOFI asks how FMCSA can accurately determine the safety of Mexican carriers operating outside the commercial zones with outdated, and in some cases non-existent, information.

Moreover, OOFI questions the Agency's ability to compare and assess the safety data of Certificate, Enterprise, and Pilot Program carriers with that of U.S.-based carriers into the future. In addition to the issue concerning the small sample size of Mexican carriers, OOFI discovered that the mileage of these carriers is far fewer than that of the average U.S.-domiciled truck driver. According to OOFI's 2014 Owner-Operator Member Profile Survey and 2015 Professional Employee Driver Profile Survey, the average long-haul owner-operator and the average company driver operate approximately 100,000 miles each year. However, 67 percent of the Certificate carriers and 56 percent of the Enterprise

carriers drive 30,000 miles or fewer each year. This makes a comparison of Mexican carriers and U.S. carriers impossible because of the large variance in exposure.

Table 11: Certificate Carriers Vehicle Miles Traveled

Annual VMT	Percentage
None listed	5%
0-10,000	39%
10,001-20,000	14%
20,001-30,000	9%
30,001-40,000	1%
40,001-50,000	5%
50,001-75,000	6%
75,001-100,000	5%
100,001-125,000	3%
125,001-150,000	2%
150,000-200,000	2%
200,001-250,000	1%
250,001-500,000	8%
500,001-1,000,000	1%
1,000,000+	1%
Grand Total	100%

Table 12: Enterprise Carriers Vehicle Miles Traveled

Annual VMT	Percentage
None listed	4%
0-10,000	28%
10,001-20,000	14%
20,001-30,000	10%
30,001-40,000	7%
40,001-50,000	3%
50,001-75,000	7%
75,001-100,000	6%
100,001-125,000	3%
125,001-150,000	3%
150,001-200,000	3%
200,001-250,000	3%
250,001-500,000	4%
500,001-1,000,000	3%
1,000,000+	4%
Grand Total	100%

Conclusion

At the completion of the Pilot Program, FMCSA submitted a report to Congress stating that Mexico-domiciled motor carriers operated as safe, or better, than U.S. and Canadian-domiciled motor carriers after conducting an analysis on the ability of Mexican carriers to operate safely beyond the commercial zones. However, both the Demonstration Project and the Pilot Program had similar and significant flaws, namely that the participation fell short of the projected goals and that a majority of the data was accrued *within* the commercial zones, not outside of them.

The 2007 Independent Evaluation Panel presented that less than 15 percent of all crossings were beyond the commercial zone, while both the OIG and the Subcommittee reported that only 5% of all destinations occurred outside of the U.S. municipalities. In fact, the OIG commented that the most active carrier in the pilot primarily made their deliveries to a location within just 2 miles of the U.S.-Mexico border. "According to preliminary FMCSA data as of June 15, 2014, Mexico-domiciled motor carrier Servicio de Transporte Internacional y Local made 13,598 trips in the United States, but only 99 trips involved operations outside of the commercial zone, and only 18 inspections were conducted during these 99 long-haul trips.³⁸"

How can the Agency evaluate the ability of Mexico-domiciled motor carriers to operate safely *outside* of the commercial zones, which was the parameter of both the Iraq Supplemental Appropriations Act and the April 2011 FRN, when relatively few inspections and destinations occurred beyond the U.S. municipalities? Both the Demonstration Project and the Pilot Program were designed to assess safety of Mexican carriers operating beyond the commercial zones, not within them. The inclusion of Certificate and Enterprise carriers cannot supplement the Pilot Program data, as Enterprise carriers in particular are essentially U.S.-based carriers and are therefore not comparable with Mexican-based carriers.

In addition to the lack of valuable data beyond the commercial zone, a vast majority of the figures from the pilot were incurred by only 2 carriers, which caused the OIG to provide the comment, "This skewed distribution of activity makes a statistical projection about the ability of Mexico-domiciled carriers to operate safely beyond the commercial zones along the United-States-Mexico border unreliable." Overall, the sample size of the pilot study was simply too small to be considered statistically valid. Thus, the conclusions that FMCSA drew from the Pilot Program cannot be correlated with the real world.

³⁸ *FMCSA Adequately Monitored its NAFTA Cross-Border Trucking Pilot Program*, pg. 13.

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Appendix A: Are Enterprise Carriers More Safe than United States Carriers: Fact or Fiction

Introduction

In January 2014, the Congressional Research Service (CRS) released a report in which the following question was posed, “Are Mexican trucks less safe than United States trucks?” In order to judge the parameters of safety, CRS utilized the Federal Motor Carrier Safety Administration’s (FMCSA) out-of-service (OOS) rates for both vehicles and drivers from roadside inspections. OOS violations are violations that are considered to be an imminent hazard which are severe enough to prevent a truck or driver from continuing to operate until the deficiency is addressed.³⁹

CRS found that 20% of trucks based in the U.S. that undergo a roadside inspection were placed OOS, and about 5% of drivers were taken OOS. Whereas the 15 Mexican carriers that participated in the U.S.-Mexico Cross-Border Pilot Trucking Program had lower rates, except for 4 carriers which had vehicle OOS rates similar to that of U.S. trucks.⁴⁰ However, it is important to note the small data set in which CRS had to work with. CRS compared inspection and OOS rates of 15 Mexican carriers, which accumulated 1,646 inspections in 2013, with OOS rates for over 500,000 U.S. carriers, which had approximately 3.5 million inspections.

In addition, of those 15 Mexican motor carriers, two carriers had accumulated 81% of the inspections, which brands the sampling statistically invalid for comparison or analysis. Furthermore, data from the three-year pilot program demonstrated that only 16% of all miles were traveled outside of the commercial zone, while only 5% of all destinations were outside the commercial zones. Therefore, this small sample does not adequately represent long-haul trucking operations, which was the subject of the pilot program.

Although statistically invalid, CRS compared the data from the pilot program with data of U.S.-domiciled carriers’ OOS rates, and offered the conclusion that Mexican carriers OOS rates were lower than their U.S. counterparts. In 2009, the CRS stated that recent data provided by the FMCSA indicated that other Mexican trucks (those operating in the 25-mile “commercial zone” across the border) are as safe as U.S. trucks and that the drivers are generally safer than U.S. drivers⁴¹. Enterprise carriers, which are US domiciled carriers that are owned or controlled (greater than 55%) by a Mexican citizen or resident alien and transport international cargo⁴² have been included in the analysis to bolster the statistical validity.

The following table compares both the driver OOS rates and vehicle OOS rates for U.S., Mexican, and Enterprise carriers in 2013. Based on OOS rates, the table appears to indicate that both Mexican and Enterprise carriers have fewer OOS rates than U.S.-domiciled motor carriers.

³⁹ John Frittelli, *Status of Mexican Trucks in the United States: Frequently Asked Questions*, Congressional Research Service (2014), pg. 6.

⁴⁰ Ibid.

⁴¹ *U.S.-Mexico Trucking Issue White Paper*, United States-Mexico Chamber of Commerce (2011), pg 4.

⁴² <http://www.fmcsa.dot.gov/registration/types-operating-authority>

Table 1: Driver and Vehicle OOS Rates

	United States	Mexico	Enterprise
Driver Inspections	2,974,667	262,320	27,353
with Driver OOS Violation	156,174	1,841	416
Driver OOS Rate	5.25%	0.70%	1.52%
Vehicle Inspections	2,017,185	228,104	18,065
with Vehicle OOS violation	428,176	36,857	3,208
Vehicle OOS Rate	21.23%	16.16%	17.76%

The Owner-Operator Independent Drivers Association Foundation (OOFI), which is the research and educational arm of OOIDA, the largest non-for profit national trade association which represents over 150,000 small business owners and professional truck drivers, has demonstrated previously that these OOS rates do not properly present the whole picture. Instead, FMCSA's data details that Mexican and Enterprise carriers are not held to the same standard as U.S.-domiciled carriers, violations that usually result in a driver or vehicle being placed OOS do not always result in an OOS violation for Mexican and Enterprise carriers.

Table 2 below, illustrates the inconsistency that exists between the three different types of motor carriers and how violations are treated, which has resulted in United States-domiciled carriers being placed OOS at much higher rate for the same violation. For example, there is a large disparity between U.S.-carriers and Mexico-domiciled and Enterprise carriers for both non-English speaking drivers and drivers that are unable to understand highway traffics signs and signals in the English language being placed OOS. In April 2005, the Commercial Vehicle Safety Alliance, which is the an international not-for-profit organization comprised of local, state, provincial, territorial and federal motor carrier safety officials,⁴³ added a criteria that allowed enforcement officers to place a driver who could not speak or understand English while in the United States, out-of-service. The criteria stated:

"In recognition of the three countries' language differences, it is the responsibility of the driver and the motor carrier to be able to communicate in the country in which the driver/carrier is operating so that safety is not compromised. Driver is unable to communicate sufficiently to understand and respond to official inquiries and directions. ... Place driver out of service."⁴⁴

OOFI broke down the OOS rates reported by FMCSA that appears to show a higher level of regulatory compliance by Mexico-domiciled and Enterprise carriers than their U.S. counterparts. However, the assertion hinges on an inconsistent application of out-of-service orders on U.S. motor carriers and Mexico-domiciled motor carriers. Table 2 demonstrates that U.S.-domiciled carriers are held to a higher standard than the other two types of carriers.

⁴³ <http://www.cvsa.org/about/index.php>

⁴⁴ Mark H. Redding, "Non-English speaking drivers can be put OOS in the U.S.," *Landline Magazine* (2005).

Table 2: Driver OOS Violation Rates

Violation Description	United States		Mexico		Enterprise	
	Viols.	OOS Percent	Viols.	OOS Percent	Viols.	OOS Percent
Driver Must Be Able To Understand Highway Traffic Signs And Signals In The English Language	225	27.11%	3,294	0.03%	12	0.00%
Driving beyond 11 hour driving limit in a 14 hour period. (Property Carrying Vehicle)	26,957	44.16%	135	26.00%	104	22.12%
Driving beyond 14 hour duty period (Property carrying vehicle)	50,122	43.01%	210	24.13%	156	35.90%
Non-English Speaking Driver	4,635	70.54%	82,841	0.07%	840	4.40%
Requiring Or Permitting Driver To Drive After 14 Hours On Duty	4,414	42.22%	95	16.84%	17	17.65%

As seen above, for the non-English speaking driver violation, U.S.-domiciled carriers were placed OOS approximately 72% of the time, whereas Mexico-domiciled and Enterprise carriers were placed OOS 0.07% and 4% of the time, respectively, for the same violation. Furthermore, U.S. carriers were placed OOS 27% of the time for the driver must be able to understand traffic signs and signals in the English language violation, while Mexico-domiciled and Enterprise carriers were placed OOS 0.03% and 0%, respectively. If these two violations were administered equally across the three types of carriers, the overall driver OOS rate would be immensely different.

In order to further demonstrate the vast disparity of how these two violations have been administered by enforcement personnel, OOFI combined the violations of the non-English speaking driver and the driver must be able to understand highway traffic signs and signals in the English language together. Therefore, for these two violations, U.S.-domiciled carriers received 3,396 OOS violations on 4,860 violations, resulting in an OOS rate of 70%. In comparison, for the same two violations, both Mexico-domiciled and Enterprise carriers received 98 OOS violations on 86,987 violations, resulting in an OOS rate of 0.11%.

The current CVSA OOS criteria states that both of these violations should result in an OOS. However, if the U.S.-domiciled OOS rate was equally applied for the same violations to Mexico-domiciled and Enterprise carriers, the overall OOS rate would be vastly different for Mexico-domiciled and Enterprise carriers as shown in Tables 3 and 4.

In order to make the OOS rates more equal and comparable between the three carrier types, OOFI utilized data from FMCSA's Analysis and Information Online database and multiplied the subsequent number of violations for each given type of violation for Mexico-domiciled and Enterprise carriers by the U.S.-domiciled carrier OOS rate. For example, Mexico-domiciled carriers accumulated 82,841 non-English speaking driver violations in calendar year 2013. Thus, OOFI applied the CY 2013 U.S.-domiciled carrier OOS rate for non-English speaking driver violations, which was 71.95%. This newly applied OOS

rate resulted in 59,604 OOS violations for Mexico-domiciled carriers, compared with the 60 OOS violations the Mexican-domiciled carriers had originally with an OOS rate of 0.07%.

Table 3: Adjusted Driver OOS Violations

Violation Description	US	MX	EN
	OOS Viol.	OOS Viol.	OOS Viol.
Driver Must Be Able To Understand Highway Traffic Signs And Signals In The English Language	61	893	3
Driving beyond 11 hour driving limit in a 14 hour period. (Property Carrying Vehicle)	11,905	60	46
Driving beyond 14 hour duty period (Property carrying vehicle)	21,556	90	67
Non-English Speaking Driver	3,335	59,604	604
Requiring Or Permitting Driver To Drive After 14 Hours On Duty	1,865	40	7

After adjusting for OOS rates, OOFI also recalculated the overall driver OOS rates for U.S.-domiciled, Mexico-domiciled, and Enterprise carriers. It is important to note that only five violations were adjusted to apply equal U.S.-domiciled OOS rates.

Table 4: Adjusted Driver OOS Rates

	United States	Mexico	Enterprise
Driver Inspections	2,974,667	262,320	27,353
with Driver OOS Violation	156,174	62,371	1,025
Driver OOS Rate	5.25%	23.78%	3.75%

Utilizing the previous formula, OOFI recalculated the vehicle OOS rates for all three categories of carriers, and as shown in Tables 5, 6, and 7, Mexico-domiciled and Enterprise carriers were once again held to a different standard than U.S.-domiciled carriers. Applying the formula to the FMCSA data indicated that Mexico-domiciled and Enterprise carriers are not safer than US carriers based on OOS rates.

Table 5: Vehicle OOS Violation Rates

Violation Description	US	MX	EN
	OOS Percent	OOS Percent	OOS Percent
Air Suspension Pressure Loss	60.40%	20.12%	28.57%
Brake-Reserve System Pressure Loss	54.71%	5.12%	6.78%
Defective / Improper Fifth Wheel Assembly Upper Half	54.81%	52.63%	0.00%
Defective Coupling Devices For Full Trailer	70.03%	38.71%	0.00%
Excessive Steering Wheel Lash	46.08%	25.45%	0.00%
Failing To Secure Brake Hose/Tubing Against High Temperatures	19.92%	0.31%	0.00%
Frame Cracked / Loose / Sagging / Broken	45.51%	10.34%	22.87%

Hubs - No Visible Or Measurable Lubricant Showing In The Hub - Outer Wheel	75.15%	22.07%	33.33%
Hubs - Oil And/Or Grease Leaking From Hub - Outer Wheel	34.79%	5.52%	7.32%
Hubs - Wheel Seal Leaking - Inner Wheel	40.81%	4.46%	10.81%
Hubs - Wheel Seal Leaking - Outer Wheel	31.55%	5.08%	0.00%
Inadequate Brake System On A Cmv	38.38%	30.00%	0.00%
Lamps Are Not Visible As Required	21.98%	4.96%	0.00%
Leaf Spring Assembly Defective/Missing	58.37%	21.35%	37.04%
No Brakes As Required	74.49%	30.43%	30.77%
No Or Defective Automatic Trailer Brake	92.54%	37.36%	71.43%
No/Improper Breakaway Or Emergency Braking	94.88%	4.39%	18.42%
Steering System Components Worn/Welded/Missing	58.58%	46.85%	29.43%
Steering Wheel Not Secured/Broken	54.77%	31.71%	20.00%
Tires (General)	29.33%	6.48%	16.33%
Tire—Tread And/Or Sidewall Separation	30.84%	2.58%	6.98%

Table 6: Adjusted Vehicle OOS Violations

Violation Description	US	MX	EN
	OOS Viol.	OOS Viol.	OOS Viol.
Air Suspension Pressure Loss	7021	1,036	47
Brake-Reserve System Pressure Loss	5915	1,678	32
Defective / Improper Fifth Wheel Assembly Upper Half	205	21	1
Defective Coupling Devices For Full Trailer	1012	22	2
Excessive Steering Wheel Lash	317	51	3
Failing To Secure Brake Hose/Tubing Against High Temperatures	208	255	9
Frame Cracked / Loose / Sagging / Broken	8237	5,164	155
Hubs - No Visible Or Measurable Lubricant Showing In The Hub - Outer Wheel	750	109	5
Hubs - Oil And/Or Grease Leaking From Hub - Outer Wheel	1594	914	29
Hubs - Wheel Seal Leaking - Inner Wheel	1608	843	15
Hubs - Wheel Seal Leaking - Outer Wheel	537	130	4
Inadequate Brake System On A Cmv	322	8	0
Lamps Are Not Visible As Required	333	31	2
Leaf Spring Assembly Defective/Missing	5513	836	32
No Brakes As Required	2392	34	10
No Or Defective Automatic Trailer Brake	8079	84	6
No/Improper Breakaway Or Emergency Braking	26892	2,660	36
Steering System Components Worn/Welded/Missing	12359	984	195
Steering Wheel Not Secured/Broken	201	22	3

Tires (General)	3491	715	14
Tire—Tread And/Or Sidewall Separation	4604	12,919	336

Table 7: Adjusted Vehicle OOS Rates

	United States	Mexico	Enterprise
Vehicle Inspections	2,017,185	228,104	18,065
with Vehicle OOS Violation	428,176	60,815	3,808
Vehicle OOS Rate	21.11%	26.66%	21.08%

Finally, Table 8 presents the adjusted OOS rate for both driver and vehicle OOS violations across all three types of carriers using the previous formula. As shown below, by adjusting the manner in which an OOS order is applied in order for the inspections to be more equal and comparable for U.S.-domiciled carriers, Mexico-domiciled carriers, and Enterprise carriers, we see that Mexico-domiciled carriers have a greater OOS rate than their U.S. counterparts, while Enterprise carriers are almost identical to U.S. OOS rates.

Table 8: Adjusted Driver and Vehicle OOS Rates

	United States	Mexico	Enterprise
Driver Inspections	2,974,667	262,320	27,353
with Driver OOS Violation	156,174	62,371	1,025
Driver OOS Rate	5.25%	23.78%	3.75%
Vehicle Inspections	2,017,185	228,104	18,065
with Vehicle OOS violation	428,176	60,815	3,808
Vehicle OOS Rate	21.11%	26.66%	21.08%

It is important to note that OOFI's research is lacking a crash rate comparison analysis of the three categories of carriers. It is very difficult, if not impossible, to correlate causation of crashes with violations and OOS criteria as there is no scientific evidence to support those assumptions. Thus, it would seem to be much more prudent to look at crashes as the ideal indicator for safety. However, crash rates for Enterprise carriers are not made publically available. Therefore, OOFI was unable to conduct a complete analysis.

Conclusion

In conclusion, the safety performance between U.S.-domiciled carriers, Mexico-domiciled carriers, and Enterprise carriers cannot be compared by only utilizing OOS rates, especially when considering the large disparity that exists between how OOS criteria is applied for the same violations for all three types of carriers. Further, this report has demonstrated that if the OOS rates for equivalent violations were administered more equally, the data would show that U.S.-domiciled carriers have a better safety performance.

Appendix B: Reliability and Validity Lacking in FMCSA's Analysis of Data for the Mexican Pilot Program

This report focuses on the methodology used by FMCSA in both collecting data and assessing results which were presented to Congress following the conclusion of the U.S.-Mexico Cross-Border Long-Haul Trucking Pilot Program (Pilot Program) involving Mexican-domiciled trucks making long-haul deliveries into the U.S. beyond the border zone.

The cornerstone of all scientific research is reliability and validity. These two concepts are a vital part in any scientific methodology in order for any conclusions or interpretations to be sound. Additionally, in order for any research or assessment to be sound, it must be free of bias and distortion.

In the Pilot Program, FMCSA was attempting to provide data and research that accepted the "Null Hypothesis" that there is no difference in the two groups being compared, meaning that long-haul Mexico-domiciled motor carriers are as safe as or safer than U.S.-domiciled long-haul carriers. It is imperative when testing for the "Null Hypothesis" that strict attention is paid to the Internal Validity of the research methodology. Appropriate scientific methodology requires that there are controls in place to assure that the groups or participants are as comparable in all aspects as possible, these are the variables or confounds that allow for comparison.

However, FMCSA failed to control the variables and confounds within the Pilot Program that might have influenced the data and comparisons made. The DOT's Scientific Integrity Policy provides nine elements that primarily detail the importance of communication, transparency, and integrity when utilizing scientific information for decision making. Unfortunately, the DOT does not provide specific guidance on how to determine appropriate methods for designing, analyzing, and reporting the results of scientific research. There is however standards that need to be accepted and are readily accessible, such as the *Guiding Principles for Evaluators* (July 2004) and Thomas D. Cook and Donald T. Campbell's *Quasi-Experimentation: Design & Analysis Issues for Field Settings* (1979), which are utilized by the OIG. Three of these standards, including using measures that are valid and reliable, employing quality controls, and reporting results that are supported by data, were misused by FMCSA in their report.

Reliability

Reliability refers to the extent to which assessments are consistent, that is, if the research were to be done again and again the findings would be the same. Another measure of reliability is the internal consistency of the items.⁴⁵ In other words, if others outside of the research project repeated the same

⁴⁵ University of South Florida, assessment/basic.

methodology, the same results should occur within a statistical margin of error. While reliability is essential in any scientific research, it may not test exactly for what it is supposed to test for, meaning that though the research may be reliable, it is actually in error. For example, while we might state that a scale is reliable if an individual weighs in at 175 lbs. every time they stand on the scale, the person might actually weigh 190 lbs. because the scale is not calibrated correctly. So while the scale appears to be reliable, if an individual states that they weigh 175 lbs., when they truly weigh 190 lbs., they would be wrong in their assessment as the actual readings are invalid. Therefore, it is important to keep in mind that a successful reliability test does not necessarily mean that the research was valid.

Validity

Validity is the second cornerstone of scientific research and refers to the accuracy of the assessment, meaning whether or not the research measures what it is supposed to measure. Research that shows high validity will more than likely show a high degree of reliability. However, the opposite may not be true.

As a part of any research design, both Internal validity and External validity must be included in the study. Internal validity dictates how an experimental design is structured and encompasses all of the steps of the scientific research method. **External validity** is the process of examining the results and questioning whether there are any other possible causal relationships. FMCSA's assessment of the Pilot Program results failed both Internal and External validity design requirements. As the Owner-Operator Independent Drivers Foundation (OOFI) clearly articulated in the papers entitled *Review of the United-States-Mexico Cross-Border Long-Haul Trucking Pilot Program* and *Are Enterprise Carriers More Safe than United States Carriers: Fact or Fiction*, the FMCSA made no attempt to control the variables or confounds that might have influenced the data results, which is a primary prerequisite of scientific research and methodology.

There are three ways in which validity can be measured. In order to have confidence that the research and its results are valid, and therefore the inferences made based on that research are valid, all three kinds of validity measurements should be considered. The three ways that validity can be measured are:

1. **Content:** The extent to which the content of the test (Pilot) matches the objective.
2. **Criterion:** The extent to which scores on the test (Pilot) are in agreement with (concurrent validity) or predict (predictive validity) and external criterion.
3. **Construct:** The extent to which an assessment corresponds to other variables, as predicted by some rationale or theory

The assessment of the Pilot Program conducted by the FMCSA shows reliability, but similar to the example of the scale mentioned above, the assessment of that reliability is misunderstood and misinterpreted.

The OOFI's previous reviews of the Pilot Program, demonstrated that the program involving Mexican domiciled carriers transporting freight within the United States beyond the border zones, which was

conducted between October 14, 2011 and October 10, 2014, is consistent and reliable with the previous “Demonstration Project” which FMCSA conducted between 2007 and 2009. Nevertheless, FMCSA has failed to recognize and consider that the reliability of correlation between these two programs indicates a lack of scientific methodology, which demonstrates that FMCSA has consistently misinterpreted and misrepresented the data. Thus the Agency’s statistical inferences are based on faulty data in order to justify results which were not controlled for in the programs. In statistics, this is called selective bias.

Reliable Correlation Results

This analysis will show that in both the previous “Demonstration Project” and the Pilot Program, there is a strong correlation between the biased enforcement of out-of-service (OOS) orders issued to the Mexican domiciled carriers compared to the U.S.-based carrier or driver placed OOS for the same violations. In both programs, there were a disproportionate number of U.S. carriers placed OOS for violations that were not enforced on participating Mexican carriers within the “Demonstration Project” and the Pilot Program.⁴⁶ While the two programs were reliable, the assessments made were not valid as they introduced bias into the research.

Validity testing of the Pilot Program:

Content measurement of validity:

While conducting the Pilot Program from October 2011 to October 2014, FMCSA admitted that:

- It did not have all the required prerequisites in place until 2012; and
- FMCSA did not conduct 50% of the PASA reviews in Mexico as the designed program required.

Content which only covers a portion of the time frame is not a valid measure of the programs overall objectives.

Criterion measurement of validity:

By reporting the OOS rates for Mexican carriers as compared to U.S. based carriers without considering the inherent bias of the enforcement, FMCSA made the measurement invalid.

Construct measurement of validity:

Construct measurement validity was the most abused measurement of assessment found in FMCSA’s analysis of the Pilot Program. In order to meet its own prediction of success, FMCSA utilized data that was completely out of the control of the program. Specifically, the Agency utilized groups that had not previously been under study with the inclusion of carriers which were Mexican owned but domiciled in the U.S. (Enterprise carriers). FMCSA included Enterprise carriers in their analysis as if these carriers were identical to the Mexico-domiciled carriers that the Pilot Program was designed to evaluate.

It is important to note that FMCSA has an established set of standards for conducting Pilot Programs which are formalized in the Federal Motor Carrier Safety Regulations (FMCSRs) Part 381.400, Subpart

⁴⁶ Review of the U.S.-Mexico Cross-Border Long-Haul Trucking Pilot Program; OOIDA Foundation, 2015.

D—Initiation of Pilot Programs: **(d) The number of participants in the pilot program must be large enough to ensure statistically valid findings** (emphasis added).

The FMCSRs clearly state that only pilot program participants should be included in the analysis. However, by introducing groups within the dataset that were not participants of the Pilot Program, FMCSA violated their own regulations in an attempt to justify the Pilot Program results because the Agency lacked enough participants for the Pilot to be considered statistically valid. This was further reinforced by the criticisms of the Pilot Program in the OIG's December 2014 audit of the program,⁴⁷ as well as the opinion of the Motor Carrier Safety Advisory Subcommittee which was appointed to monitor the Pilot.⁴⁸ [A more comprehensive review of the OIG and MCSAC Subcommittee is available in the OOFI paper: *Review of the U.S.-Mexico Cross-Border Long-Haul Trucking Pilot Program*].

External Validity

External validity is the process of examining the results and questioning whether there are any other possible causal relationships. FMCSA either ignored or was determined not to accept any other possible causal relationships that could have affected the data. While FMCSA recognized the limited sample size, it ignored the scientific implications of that information and introduced carriers into the data that were not a part of the Pilot Program and had different operating characteristics than those who did participate. Again, this was made evident by the OOFI in its *Review of the U.S.-Mexico Cross-Border Long-Haul Trucking Pilot Program*.

Another external validity process which was not considered by FMCSA was that different states, counties, cities, and towns often focus on certain Federal Motor Carrier Safety violations to enforce which thereby creates a biased enforcement as well as a data program which lacks external validity for comparisons. This issue has been well documented by Dr. James Gimpel at the University of Maryland in his analysis of the different violation enforcement practices as indicated in the MCMIS database in relationship to the Comprehensive Safety Analysis used by FMCSA to rank carriers on safety:

“The bias only begins at the design stage. Other sources of bias occur as the measurement system is implemented. While an inspection can occur almost anywhere, historically inspections have most frequently occurred at roadside inspection stations throughout the 50 states. This has changed as states now carry out more mobile inspections at rest stops, truck stops and other roadside sites. The recorded data originate from where these inspections take place. The locations of inspection stations, their times and hours of operation, are neither random nor uniform across the highway system. Inspection records are not likely to be reflective of the traffic volume of the nationwide carrier fleet, or the geographic location of firms, but instead the idiosyncratic practices of state regulators. For instance, recent data are highly sensitive to the high number of inspections carried out in California, Arizona and Texas, and the relative dearth of inspections in much of the Northeast.

⁴⁷ FMCSA Adequately Monitored its NAFTA Cross-Border Trucking Pilot Program, pg. 2.

⁴⁸ MCSAC, Oversight of the Long-Haul Cross Border Trucking Pilot Program Subcommittee Report to the MCSAC, FMCSA (November 2014), pg. 1.

What local regulators choose to focus on in terms of enforcement emphasis is also highly variable. Current data (Spring 2012) on BASIC percentile scores show that firms operating out of Montana and North Dakota exhibit far lower scores on the Unsafe Driving BASIC than firms physically located in Kentucky, West Virginia, New Hampshire and Massachusetts. This is an enforcement pattern that cannot be explained away by traffic density or road conditions. The Fatigued Driver BASIC scores are highest for carriers operating out of Florida, Georgia and Idaho, and just across the border from Idaho, considerably lower in Washington state – reflecting the vagaries of local enforcement -- not safety attributes of carriers operating in these regions. Vehicle maintenance BASIC violations are highest in Florida, Texas, South Carolina and Connecticut, but lower on carriers based in Hawaii, Pennsylvania, Delaware and Maryland – variation that cannot be explained by traffic or population density measures. From a statistical standpoint, the problem is the extraordinary level of heterogeneity in measurements resulting not from the characteristics of firms, drivers, and road conditions, but due to the application of the measuring instruments by data gatherers. The biases injected at the implementation stage prevent the BASIC indicators from assessing what they are intended to evaluate.⁴⁹

Comparing the 13 Mexican carriers that completed the Pilot Program in which two carriers were responsible for 90% of the border crossings and 80% of the inspections, with over 500,000 U.S. carriers with millions of inspections in all 48 contiguous states is both statistically absurd and lacks basic scientific integrity. The FMCSA then compounded the absurdity by using carriers that were domiciled in the U.S. but Mexican owned, carriers that were not long-haul but operated within the commercial zone, and drivers that were not a part of the pilot program but drove Pilot Program approved trucks, as part of their data.

In addition, it has become a standard FMCSA practice to utilize “the cult of statistical significance” to justify and validate the Agency’s findings. While no one is disputing the value of mathematical significance and its importance in scientific research it has become, “...a diversion from the proper objects of scientific study. Significance, reduced to its narrow and statistical meaning only—as in “low” observed “standard error” or “ $p < .05$ ” –has little to do with a defensible notion of scientific inference, error analysis, or rational decision making. And yet in daily use it produces unchecked a large net loss for science and society. Its arbitrary, mechanical illogic, though currently sanctioned by science and its bureaucracies of reproduction, is causing a loss of jobs, profit, and even life.⁵⁰” In other words, using statistical significance as the measure of whether research data is valid and reliable is not defensible in making scientific inferences, error analysis, or rational decision making. FMCSA has attempted to utilize bias data, incomplete data, and erroneous data in order to justify the Pilot Program by claiming that there is no statistical difference between Mexican carriers and U.S.-domiciled carriers.

⁴⁹ James Gimpel, *Statistical Issues in the Safety Measurement and Inspection of Motor Carriers*, University of Maryland, pg. 2.

⁵⁰ Stephen T. Ziliak and Deirdre N. McCloskey, *The Cult of Statistical Significance*, Roosevelt University and University of Illinois-Chicago.

In conclusion, let us examine the facts of the Pilot Program and the statement made by FMCSA concerning those findings:

Facts:

OIG initial report of Mexican Pilot program (2011):

1. FMCSA had not initiated specific plans for checking drivers and trucks at the border
2. FMCSA had not established a system to verify driver and vehicle eligibility
3. FMCSA had not issued an implementation plan nor acquired electronic monitoring devices
4. FMCSA had not conducted pilot program training for inspection personnel at the border nor in the U.S.
5. FMCSA did not have plans for conducting 50% of all PASAs on-site in Mexico

OIG Interim Audit (2012):

1. Only 4 Mexican carriers in program
2. FMCSA's oversight mechanisms did not comply ensure full compliance with the requirements of the Pilot Program
3. FMCSA staff did not comply with English language proficiency requirements
4. FMCSA's quality assurance personnel approved two of three PASA results without verifying that the driver's license testing was complete
5. PASA auditor failed to determine whether a carrier complied with drug and alcohol testing
6. FMCSA did not periodically review electronic monitoring data
7. FMCSA delayed the development of a mechanism for determining cabotage

OIG Final Audit (2014):

1. FMCSA was not able to comply with the requirement for conducting 50% of the PASAs onsite in Mexico
2. FMCSA lacked an adequate number of Mexican domiciled carriers to yield statistically valid findings
3. Could not determine with confidence that the participants were representative of Mexican Domiciled carriers
4. The sample size was too small for us (OIG) to produce statistically reliable estimates
5. Non-pilot Program drivers were included in the FMCSA's total inspection count
6. FMCSA excluded inspections during the first three months of the carriers registration period
7. 90% of all border crossings were by two carriers
8. 80% of all inspections were on two carriers
9. Only 17% of all miles were outside the Border States

FMCSA's report to Congress on the OIG Audit:

The OIG report indicates that that FMCSA adequately managed the Pilot Program.