



## **OOIDA Foundation**

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### **WHITE PAPER**

# **Are Enterprise Carriers More Safe than United States-based Carriers: Fact or Fiction**

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## 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.<sup>1</sup>

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.<sup>2</sup> 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. drivers<sup>3</sup>. 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 cargo<sup>4</sup> 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.

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<sup>1</sup> John Frittelli, *Status of Mexican Trucks in the United States: Frequently Asked Questions*, Congressional Research Service (2014), pg. 6.

<sup>2</sup> Ibid.

<sup>3</sup> *U.S.-Mexico Trucking Issue White Paper*, United States-Mexico Chamber of Commerce (2011), pg 4.

<sup>4</sup> <http://www.fmcsa.dot.gov/registration/types-operating-authority>

**Table 1: Driver and Vehicle OOS Rates**

	United States	Mexico	Enterprise
<b>Driver Inspections</b>	2,974,667	262,320	27,353
<b>with Driver OOS Violation</b>	156,174	1,841	416
<b>Driver OOS Rate</b>	5.25%	0.70%	1.52%
<b>Vehicle Inspections</b>	2,017,185	228,104	18,065
<b>with Vehicle OOS violation</b>	428,176	36,857	3,208
<b>Vehicle OOS Rate</b>	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,<sup>5</sup> 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."<sup>6</sup>*

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.

<sup>5</sup> <http://www.cvsa.org/about/index.php>

<sup>6</sup> 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
<b>Driver Must Be Able To Understand Highway Traffic Signs And Signals In The English Language</b>	225	27.11%	3,294	0.03%	12	0.00%
<b>Driving beyond 11 hour driving limit in a 14 hour period. (Property Carrying Vehicle)</b>	26,957	44.16%	135	26.00%	104	22.12%
<b>Driving beyond 14 hour duty period (Property carrying vehicle)</b>	50,122	43.01%	210	24.13%	156	35.90%
<b>Non-English Speaking Driver</b>	4,635	70.54%	82,841	0.07%	840	4.40%
<b>Requiring Or Permitting Driver To Drive After 14 Hours On Duty</b>	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
<b>Driver Inspections</b>	2,974,667	262,320	27,353
<b>with Driver OOS Violation</b>	156,174	62,371	1,025
<b>Driver OOS Rate</b>	<b>5.25%</b>	<b>23.78%</b>	<b>3.75%</b>

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
<b>Vehicle Inspections</b>	2,017,185	228,104	18,065
<b>with Vehicle OOS Violation</b>	428,176	60,815	3,808
<b>Vehicle OOS Rate</b>	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
<b>Driver Inspections</b>	2,974,667	262,320	27,353
<b>with Driver OOS Violation</b>	156,174	62,371	1,025
<b>Driver OOS Rate</b>	5.25%	23.78%	3.75%
<b>Vehicle Inspections</b>	2,017,185	228,104	18,065
<b>with Vehicle OOS violation</b>	428,176	60,815	3,808
<b>Vehicle OOS Rate</b>	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.

## Bibliography

Frittelli, J. (2014). *Status of Mexican Trucks in the United States: Frequently Asked Questions*. Washington, DC: Congressional Research Service.

Redding, M. H. (2005, May). *Non-English speaking drivers can be put OOS in the U.S*. Retrieved December 22, 2014, from Landline Magazine:  
<http://www.landlinemag.com/Magazine/2005/May/News/non-english.aspx>

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