

# POTENTIAL BENEFITS OF CO-LOCATING TEXAS/MEXICO BORDER SAFETY INSPECTIONS

**A study directed by the Texas Legislature**

*by*

Rafael M. Aldrete  
Swapnil Samant  
Okan Gurbuz  
Kirbie Ferrell  
Erik Vargas  
Alejandro Berlanga

*Project performed by*

Center for International Intelligent Transportation Research

*In consultation with*

Texas Department of Public Safety  
U.S. Federal Motor Carrier Safety Administration  
Texas Department of Transportation

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Center for International Intelligent Transportation Research  
Texas A&M Transportation Institute  
4050 Rio Bravo, Suite 151  
El Paso, Texas 79902

TEXAS A&M TRANSPORTATION INSTITUTE  
The Texas A&M University System  
College Station, Texas 77843-3135

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## **DISCLAIMER AND ACKNOWLEDGMENTS**

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The research team thanks Major Chris Nordloh, with the Texas Department of Public Safety (DPS), Ms. Ellen Allison, with the United States (U.S.) Department of Transportation Federal Motor Carrier Safety Administration (FMCSA), and Mr. Eduardo Hagert, with the Texas Department of Transportation (TxDOT), for assisting researchers in coordinating this study within their respective agencies. Researchers would like to extend their appreciation to DPS officials and civilian personnel in Austin and at field locations in El Paso, as well as to FMCSA officials in Washington, DC, Austin, and at field locations in El Paso, for participating in meetings with researchers, providing data, and facilitating field visits in El Paso. Finally, researchers would like to thank Mr. Charlie Hart and Mr. Chris Anzalduas with the U.S. General Services Administration (GSA) for providing input into the study.

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## EXECUTIVE SUMMARY

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Legislation affecting commercial motor vehicle (CMV) trade in the United States dates back more than a century, with the most consequential policy changes emerging in the 1980s and the North American Free Trade Agreement (NAFTA) being enacted in 1994. All of these actions were designed in part to enhance the safety of cross-border trucking operations. For a variety of reasons, however, differences between safety standards in the United States and Mexico made it difficult for both nations to meet certain milestones in the NAFTA. Trade between the nations grew substantially in the 1990s. Soon thereafter, the U.S. government accelerated its actions to establish inspection facilities in all states along the Mexico border, where trucks are now inspected first by federal agents and then by state officials.

Commercial motor vehicles crossing from Mexico into Texas at one of 13 land ports of entry today may undergo up to five separate inspections. While most of these have different scopes and goals, two focus primarily on CMV safety and thus rely on similar standards.

Upon crossing into the United States, a truck is inspected by officers from U.S. Customs and Border Protection (CBP). A secondary, more thorough CBP inspection may also be performed once a truck is moved to the federal compound, where inspections may be conducted by one or more of the following agencies: the Federal Motor Carrier Safety Administration (FMCSA), the U.S. Department of Agriculture, the Food and Drug Administration, and the Environmental Protection Agency. After leaving the federal compound, the truck proceeds to the Border Safety Inspection Facility operated by the Texas Department of Public Safety (DPS). Each step in the process contributes to total crossing times to a greater or lesser extent—depending on the scope of each inspection process and the number of vehicles subject to each inspection—especially when demand exceeds personnel capacity at inspection points.

Inspections, which include eight different levels and can involve as many as 37 steps, are structured through the North American Standard Inspection Program developed by the Commercial Vehicle Safety Alliance, a non-profit association working to ensure uniformity and compatibility in the screenings performed by certified inspectors focusing on driver and vehicle safety.

Both state and federal inspectors screen entering CMVs for compliance, conduct a risk assessment of each vehicle, and select for inspection those that are deemed a higher risk of non-compliance. Trucks that do not pass inspection are directed to a separate waiting area to be fixed. If they cannot be fixed on-site, they will be towed to an offsite repair facility. Inspections in the federal compound typically require about one hour per truck, while most Border Safety Inspection Facility (BSIF) screenings are usually finished within 45 minutes. Upon clearing the BSIF, the driver and truck are allowed entrance into the United States.

Only a small fraction of all CMVs entering Texas are subjected to comprehensive safety inspection by federal or state inspectors. The state and federal inspections are not duplicative. Given their similar scopes, however, conducting these separate inspections in a more coordinated fashion under the same roof has long been perceived as a potential solution to minimize duplication and reduce crossing times.

The main objective of this study is to analyze the feasibility of co-locating federal and state inspections at Texas-Mexico border crossings and assess the potential benefits in terms of improving the efficiency of CMV traffic flows. A secondary objective of this study is to assess and document to what extent federal and state safety inspection processes duplicate each other and influence average border crossing times.

Study findings suggest that any impact that combined federal-state inspection processes may have on average border crossing times is not driven primarily by the inspections being conducted at separate facilities but rather by the rate at which vehicles are inspected. In other words, simply co-locating the state and federal inspections is not likely to result in significant reductions in crossing times, unless the share of trucks being inspected is reduced. The question of reducing the impact of safety inspections on average crossing times is more about whether the potential costs of reducing the inspection rate outweighs the potential benefits in terms of shorter crossing times. At the same time, experience shows that decreasing the inspection rate could lead to reduced safety compliance and increased risk to the public.

Findings further suggest that border safety inspections currently have only a minimal impact on border crossing times and co-location is not likely to produce any reduction in border crossing times. When FMCSA and DPS have opted for co-location of inspections at border crossings in the past, their decision has been primarily driven by space constraints. Therefore, there may be benefits to co-location at those border crossings where DPS does not have a BSIF. However, complexities in negotiating a lease agreement with the General Services Administration (GSA), which requires a payment for the space leased, have created a challenge for DPS in the past.

Researchers present several recommendations based on their findings:

- Consider co-location within the federal compound at the Laredo-World Trade Bridge Land Port of Entry (LPOE). More specifically, consider re-starting lease negotiations between DPS and GSA to re-establish a DPS CMV safety inspection at this location.
- Consider co-location within the federal compound as a future potential alternative at smaller LPOEs where CMV traffic volumes do not currently warrant a permanent DPS presence but where growth is expected and implement accordingly.
- Consider conducting a study to determine minimum effective rates of CMV border safety inspection and assisting agencies in optimizing target inspection rates at LPOEs to minimize CMV out-of-service rates. The study should also include an analysis of the extent to which CMVs involved in cross-border drayage contribute to overall statewide CMV crashes. This study could assist agencies in fine tuning inspection rates and may have a minor, but positive, impact on reducing the safety inspection component of CMV crossing times.
- Consider conducting research on non-invasive technologies and/or practices that could help safety inspectors reduce the time it takes to conduct comprehensive CMV inspections.



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## **CHAPTER 1: INTRODUCTION**

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This study was conducted by the Texas A&M Transportation Institute (TTI) in response to Texas Senate Bill SB 1907 (SB 1907) approved by the Texas 87th Legislature. SB 1907 requires the institute, in consultation with the Texas Department of Transportation (TxDOT) and the Texas Department of Public Safety (DPS), to conduct a feasibility study on maintaining co-located federal and state inspection facilities at Texas international Land Ports of Entry (LPOEs) for the inspection of commercial motor vehicles (CMV) for compliance with federal and state CMV regulations. In conducting the study, SB 1907 also requires TTI to solicit the perspective of the United States Federal Motor Carrier Safety Administration (FMCSA) on the advantages and disadvantages of co-located federal and state inspection facilities.

### **STUDY BACKGROUND**

CMVs crossing from Mexico into Texas may undergo up to five separate inspections. First, at the federal compound, U.S. Customs and Border Protection (CBP) officers conduct a primary inspection (#1) or send the vehicle to a detailed secondary inspection (#2). The secondary inspection may include Vehicle and Cargo Inspection System (VACIS) or a physical inspection to search for contraband items. Depending on the cargo contents and the outcome of the secondary inspection, inspections by other agencies (#3), such as the U.S. Department of Agriculture and the U.S. Food and Drug Administration (FDA), may be required. After being released from the secondary inspection, CMVs may be visually screened by FMCSA and selected for a comprehensive safety inspection (#4) before being released out of the federal compound. Next, CMVs enter the Texas DPS Border Safety Inspection Facility (BSIF), where they are also visually screened for potential federal or state safety violations, and those selected are subject to a comprehensive safety inspection (#5). Each of these processes contributes to total crossing times to a greater or lesser extent—depending on the scope of each inspection process and the number of vehicles subject to each inspection—especially when demand exceeds personnel capacity at inspection points.

While most of these inspection processes have different scopes and goals, two of them focus primarily on CMV safety and thus rely on similar CMV performance measures and follow the Commercial Vehicle Safety Alliance (CVSA) guidelines. The first CMV safety inspection process is conducted at the federal compound by FMCSA, where inspectors confirm that the CMVs (including the freight carrier, the truck, trailer, and driver) meet specific U.S. Department of Transportation (USDOT) safety and regulatory requirements. The second process is conducted at the BSIF by Texas DPS inspectors who confirm that CMV and driver meet state vehicle safety regulations. Both DPS and FMCSA inspectors screen entering CMVs for compliance, conduct a risk assessment of each vehicle screened, and select for inspection those that are deemed a higher risk of non-compliance.

Given their similar scopes, conducting these separate inspections in a more coordinated fashion and in the same facility has long been discussed by stakeholders across Texas as a potential opportunity to reduce crossing times. In fact, the Texas Border Transportation Master Plan recommended to “study the feasibility of co-locating DPS inspection facilities with federal

inspectors where possible rather than separate Border Safety Inspection Facilities,” with the objective of eliminating duplicative or overlapping inspections to reduce border crossing delays. SB 1907 was enacted in response to these concerns.<sup>1</sup>

## STUDY OBJECTIVES

As noted in the previous section, separate federal and state border CMV safety inspections have long been perceived by stakeholders as duplicative and removing such duplication as a potential opportunity to reduce average border crossing times at Texas-Mexico LPOEs. Nevertheless, no efforts had previously been undertaken to document to what extent the separate federal and state

**The main objective of this study is to analyze the feasibility of co-locating federal and state inspections at Texas LPOEs and assess the potential benefits in terms of improving the efficiency of cross-border CMV border traffic flows.**

border CMV inspections influence border crossing times and to what extent (if any) they duplicate each other unnecessarily. Consequently, the main objective of this study is to analyze the feasibility of co-locating federal and state inspections at Texas LPOEs and assess the potential benefits in terms of improving the efficiency of cross-border CMV border traffic flows. A secondary objective of this study is to assess and document to what extent (if any) federal and state CMV safety inspections duplicate each other and to what extent the safety inspection process influences average border crossing times.

## ORGANIZATION OF THIS REPORT

This report is organized in six chapters including this introduction. This introductory section presents the background of this study and its objectives. Chapter 2 describes the approach and methodology that TTI researchers followed to conduct the study. Chapter 3 provides important historical background for the study of CMV safety inspections at the U.S.-Mexico border, including their origins, evolution, and instances of co-location of federal and state CMV safety inspections. Chapter 4 describes the CMV border crossing process and its different components, including its federal and state safety inspection components, and presents an analysis of recent federal and state CMV border safety inspection statistics at Texas-Mexico LPOEs. Chapter 5 presents the feasibility analysis of co-locating state and federal CMV safety inspections at Texas-Mexico LPOEs. Finally, Chapter 6 discusses the conclusions and recommendations, as well as the limitations of this study. This report includes two appendices. Appendix A provides detailed CMV border safety inspection statistics provided by DPS, and Appendix B transcribes the comments received from the Texas DPS in response to the draft version of this report.

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<sup>1</sup> Duplicate or overlapping inspections are defined for the purposes of this report as inspections that: (1) are identical in scope and performance metrics and (2) target the same set of CMVs in a single border crossing trip.

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## CHAPTER 2: APPROACH AND METHODOLOGY

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This chapter describes the approach and methodology followed by researchers to conduct the study. That is, literature research, stakeholder consultations, field visits, data analysis, and agency-specific discussions.

### APPROACH

As indicated in the previous chapter, the main objective of this study was to analyze the feasibility of co-locating federal and state inspections at Texas LPOEs and assess the potential benefits in terms of improving the efficiency of cross-border CMV border traffic flows. A secondary objective of this study was to assess and document to what extent (if any) federal and state CMV safety inspections duplicate each other and to what extent the safety inspection process influences average border crossing times.

To achieve these objectives researchers followed an all-around approach that consisted of extensive interaction with DPS and FMCSA officials, coordination with TxDOT, field visits, in-depth border safety inspection process analysis, data gathering, data analysis, and objective as well as subjective quantification of potential benefits. This approach allowed researchers to address the goals of SB 1907 in the most cost-effective, yet comprehensive way possible.

### METHODOLOGY

The methodology researchers used in conducting this study consisted of the nine sequential tasks described below and shown in

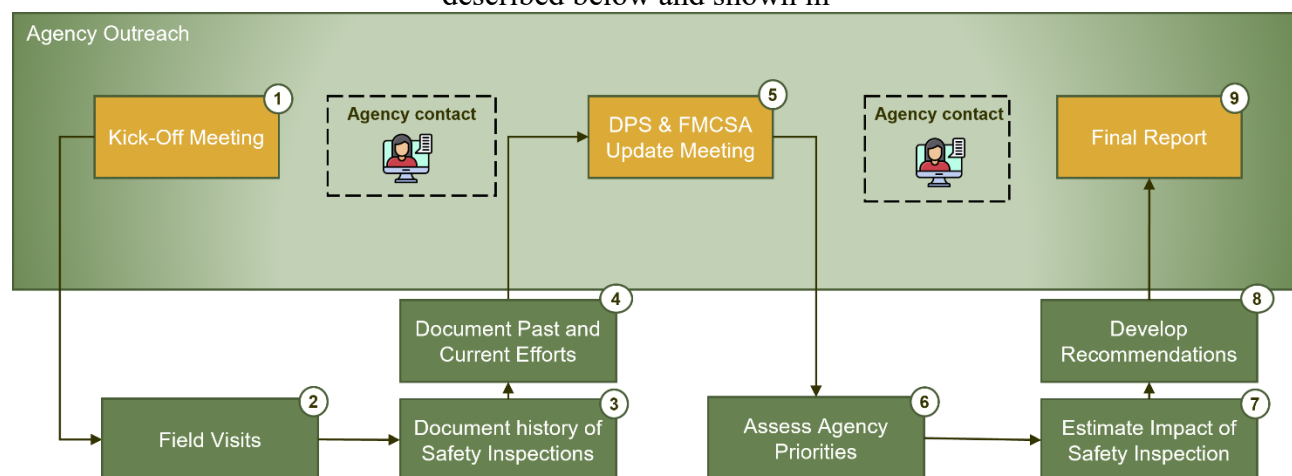
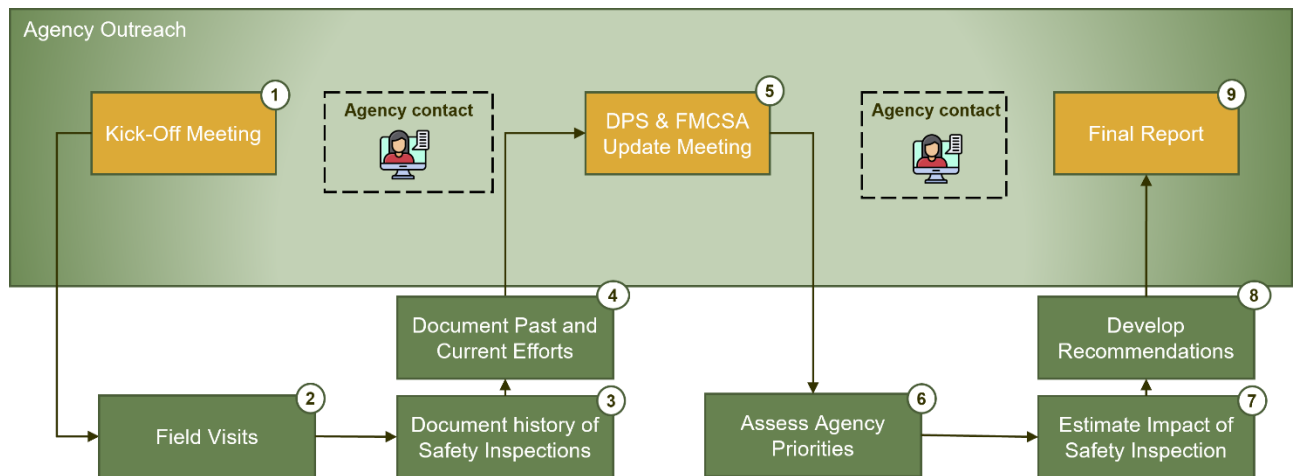


Figure 1.

- 1. Kick-off meeting**—Researchers reached out to the designated Texas DPS, FMCSA and TxDOT points of contact to set up a kick-off meeting. During the kick-off meeting,

researchers presented an initial plan for the study and study schedule. Researchers also identified documents and key sources of information to be collected for Tasks 3 and 4.

2. **Field visits**—Researchers visited the Ysleta-Zaragoza and the Bridge of the Americas (BOTA) commercial crossings to study the border crossing process and to study the process followed by FMCSA and Texas DPS for the inspection of commercial vehicles entering Texas from Mexico. This process is documented later in the report.
3. **Document history of CMV safety inspections along Texas and Mexico border**—Researchers documented the history of CMV safety inspections along the U.S.-Mexico border and how the safety inspection processes and inspection agencies evolved with regards to NAFTA.
4. **Document past and present efforts for co-location of federal and state commercial vehicle inspection facilities**—Researchers reviewed publicly available literature and reached out to agencies to identify official sources of information to document recent instances of international border safety inspection coordination efforts between states and FMCSA.
5. **DPS and FMCSA update meetings**—Meetings with each one of the agencies were held with the goal of discussing findings from Tasks 2, 3, and 4, receiving feedback, and requesting safety inspection statistics. Additionally, researchers also solicited feedback from both agencies about current agency strategic priorities, policies, and plans for border CMV safety inspections, and their perspectives on their experiences, advantages, disadvantages, and limitations of co-locating inspection facilities.
6. **Assess state and federal border transportation agency priorities and perspectives**—Researchers reached out to individual agencies to document their current priorities, policies, and plans regarding coordination of international border safety inspections between federal and state agencies.
7. **Estimate the impact of inspection process on crossing times**—Researchers collected data from various data sources to get a better understanding of the impact of safety inspection on the overall crossing time. Data from DPS, FMCSA, CVSA, BCIS, and the Bureau of Transportation Statistics (BTS) were analyzed, and a mathematical model was developed to quantify the impact of safety inspections on the overall crossing time.
8. **Develop recommendations**—Researchers developed a set of recommendations in the form of a draft final report based on the findings of the previous tasks. The draft final report was shared with state and federal agencies for review and comments.
9. **Final report**—A final report was developed, which documents the tasks and outcomes for the tasks listed above in the methodology.



**Figure 1. Methodology.**

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## **CHAPTER 3:**

# **A BRIEF HISTORY OF U.S.-MEXICO BORDER CMV SAFETY INSPECTIONS**

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This chapter discusses the various legislative and policy changes that have impacted the CMV border safety inspection requirements and trade status between the United States and other North American countries, particularly Mexico. Figure 2 highlights the milestones of the U.S.-Mexico border safety inspections.

## **EARLY CMV TRADE**

Leading up to the agreement and later implementation of NAFTA, there were a few major pieces of legislation that impacted the movement of commercial trucks within the United States and North America. In 1887, Congress created the Interstate Commerce Commission (ICC), which primarily oversaw and regulated the railroad industry (Moore, T.G., n.d.). Amidst pressure from the railroads, as well as potentially unclear authority over CMVs regulation between state and federal government, commercial truck traffic was later placed under the oversight of the ICC through the Motor Carrier Act of 1935. The Motor Carrier Act of 1935 created new requirements for commercial truck traffic, including the requirement to obtain a “certificate of public convenience and necessity” from the ICC. Additionally, it required the filing of rates with the ICC 30 days prior to these rates going into effect, and these rates could be inspected by competitors and potentially challenged by other carriers (Moore, T.G., n.d.). Under this act, the ability to obtain a license and transport goods became increasingly difficult, and it became nearly impossible to gain new or expanded authority to move goods during the period of 1940 to 1980 (Moore, T.G., n.d.).

The next major piece of legislation, the Motor Carrier Act of 1980, was signed into law under the Carter Administration. Upon signing this legislation, the President declared that this act was signed to “remove 45 years of excessive and inflationary Government restrictions and red tape” which was placed on the trucking industry decades before (MacDonald, C., 2009). This act removed the significant restraints placed on trucking companies trying to become licensed by the ICC, which spurred rapid growth of trucking in the early 1980s (MacDonald, C., 2009). This act also did not differentiate between U.S., Canadian, and Mexican trucking companies, which, in theory, allowed the companies from these countries greater flexibility to obtain the certification to operate in the United States (MacDonald, C., 2009).

Shortly after the implementation of the Motor Carrier Act of 1980, Congress, under the Reagan Administration, passed the Bus Regulation Reform Act of 1982 in response to Mexican truck traffic policies toward the United States (MacDonald, C., 2009). At this time, the United States was allowing truck traffic from Mexico and Canada, but Mexico was refusing to open the border to U.S. truck traffic. In response to this policy, the Reagan Administration signed this act, which imposed moratorium for a two-year period on the issuance of new authorizations for foreign motor carriers (MacDonald, C., 2009). This moratorium was immediately suspended in regard to Canada as U.S. operation in Canada was never limited, but the moratorium toward Mexico continued and was extended in 1984, 1986, 1988, 1992, and 1995 (MacDonald, C.,

2009). Under the moratorium, Mexican carriers already operating in the United States were able to continue operations assuming all safety requirements were met, and carriers traveling through the United States to Canada were able to continue these operations as well (MacDonald, C., 2009). The United States also permitted Mexican carriers to operate within “commercial zones” near the U.S. and Mexico border. These commercial zones were generally geographic areas between three and 20 miles north of U.S. border cities, and long-haul operations were prohibited (OIG, 1998). To address the challenges of a fragmented policy between the three countries and costly tariffs, the United States, Mexico, and Canada began negotiating a trade agreement in 1990 (MacDonald, C., 2009).

## **NORTH AMERICAN FREE TRADE AGREEMENT**

In December of 1992, the United States, Mexico, and Canada agreed to NAFTA, and the agreement was ratified by the United States in December of 1993. The agreement went into effect on January 1, 1994. The purpose of NAFTA was to better facilitate trade between these North American countries, including eliminating tariffs and other barriers and challenges to the movement of goods and services in these countries (OIG, 1998). For several decades leading up to the NAFTA agreement, the United States worked to develop and expand commercial vehicle standards to encourage safer trucks and operations. Activities in this area included the

**In the decades leading up to the NAFTA agreement, the United States developed minimum CMV safety standards, and the states developed enforcement programs for these standards and reviews of carrier compliance.**

development of minimum safety standards, grants for states to develop programs for the enforcement of these standards, and reviews of trucking companies to evaluate compliance with standards, among other things. The federal government worked in partnership with states to provide financial assistance for enforcement and aid in the development of practices while states took on

the development of strategies for enforcement (Government Accountability Office [GAO], 1997).

The United States was well underway in encouraging and enforcing safe operations and vehicle standards when the NAFTA agreement occurred, and as mentioned in previous history, the United States also already maintained some trade relationships with both Canada and Mexico. The United States and Canada opened their shared border to commercial traffic 10 years prior to the implementation of NAFTA, and the two countries worked closely to develop uniform safety standards and inspection procedures (OIG, 1998). By the time NAFTA was officially implemented, trucking operations at the northern border of the United States were operating in a more uniform fashion. Unlike the relationship between the United States and Canada, the cross-border trade relationship between the United States and Mexico was less established due to safety and environmental concerns, as well as concerns over reciprocity of the agreement. Due to the difference in the foundation of the inspection operations and vehicle standards at the southern versus the northern border, many of the implementation challenges occurred at the U.S. southern border. For the purposes of the remainder of this literature review, the focus will be on the southern border of the United States—specifically the border between Mexico and Texas.



## **NAFTA Implementation and Early Years: The United States and Mexico**

Rather than fully opening the border to commercial traffic movement at once, the NAFTA agreement outlined steps to incrementally open the border and remove trade barriers existing between the three countries (MacDonald, C., 2009). On December 18, 1995, the first phase of the plan was set to go into effect, which would allow Mexican carriers to travel into the four border states, including Texas, New Mexico, Arizona, and California. Conversely, Mexico would also allow U.S. carriers access into the six Mexican border states (MacDonald, C., 2009). The second phase of the agreement was set to go into effect on January 1, 2000, and this phase would open borders to full access by both the United States and Mexico (MacDonald, C., 2009). However, on December 17, 1995, President Clinton opted to sign an executive order once again extending the moratorium on Mexican truck traffic access to U.S. border states (MacDonald, C., 2009).

### **NAFTA Agreement: Southern Border (Texas)**

While the United States had worked to develop vehicle safety and inspection protocol for decades prior, Mexico was just beginning to establish a CMV enforcement and inspection program in 1995 (GAO, 1996). Because of the lack of established safety program, Mexican trucks and truckers did not meet many of the requirements to operate within the United States. This impacted the ability of the United States to meet the NAFTA timeline at the southern border and led to some of the delays in border openings mentioned above.

Some of the areas where standards and policies conflicted were in limiting the hours of operation for drivers, requiring logbooks for recordkeeping, requiring front braking on trucks, and limiting the maximum size and gross vehicle weight of trucks (GAO, 1996). Additionally, many Mexican trucks did not meet a lot of the safety requirements for the actual vehicle. In 2000, six years after the implementation of NAFTA, it was estimated that only 20 percent of the commercial cargo trucks registered for use on Mexican federal highways were manufactured after the year 1994 (GAO, 2001). Under NAFTA, each country maintained the responsibility to enforce their own safety standards, so the stark differences between vehicle and operation safety, as well as driver requirements in the two countries, led to significant difficulty in adhering to the timeline imposed under the agreement out of concern for the safety of the traveling public.

### **SOUTHERN BORDER INSPECTIONS**

As discussed, prior to the NAFTA agreement, Mexican trucks were allowed to operate in the commercial zones near U.S. border cities. In the years just before the agreement, there were an estimated 11,000 trucks crossing from Mexico to the United States daily (GAO, 1996). Many of these trucks were not up to the safety standards of the United States, and the United States maintained the ability to uphold the country's safety standards under NAFTA. Among the many challenges of vehicle and driver standard differences, the United States also lacked sufficient data to understand out-of-service rates for vehicles crossing from Mexico as well as how many vehicles would be crossing from Mexico.



On December 18, 1995, in the wake of the announcement that Mexican trucks would not be granted further access to the border states, the United States ramped up inspection efforts at nine of the border locations to gather more information on crossing trends. During a three-week effort and the inspection of 1,613 trucks, about 56 percent of trucks were placed out of service, and an additional 14 percent of drivers were placed out of service. In fiscal year 1994, inspections of U.S. trucks across the United States were resulting in about 28 percent of trucks and 8.5 percent of drivers being placed out of service (GAO, 1996).

**In 1995 out-of-service rates of CMVs inspected at U.S.-Mexico LPOEs were at 56 percent, while out-of-service rates for CMVs inspected across the United States were about half, at 28 percent.**

From 1992 to 1995, truck traffic from Mexico increased by an estimated 27 percent, and 66 percent of this traffic was entering at a Texas LPOE (GAO, 1996). Of each of the states bordering Mexico, Arizona was the only state keeping more data on crossings and out-of-service rates, and California was the state conducting the most rigorous inspections (GAO, 1996). California had been inspecting trucks in commercial zones for several years, and in 1996, California opened two permanent truck inspection facilities at its major border locations. California relied on \$30 million in earmarked federal and state funding because these were considered high priority projects. The project decision and construction were simplified by the availability of land for purchase adjacent to the ports of entry locations for customs (GAO, 1997).

**In the early years of NAFTA, the United States lacked CMV safety inspection sites at most southern border LPOEs and had inadequate staffing levels, limited inspections sites, and conflicting views about responsibility for funding safety inspections at the border.**

While the states recognized the benefits of conducting border inspections, there were a few factors influencing the slowness of increasing inspections, and funding issues were a primary challenge. The United States lacked inspection sites at most of the ports of entry from Mexico to the United States in the early years after NAFTA implementation, border locations had inadequate staffing levels to conduct needed inspections, access to land

was limited in some location for inspection sites, and there were conflicting thoughts on the funding responsibility at the border. The GAO issued a report in December of 2001 that reported trade between the United States and Mexico had grown from \$100 billion in 1994 to \$248 billion in 2000 and that northbound truck crossings increased from about 2.7 million in fiscal year (FY) 1994 to more than 4.3 million in FY 2001. Although trade was growing, the GAO also reported that USDOT lacked a plan for compliance with NAFTA, and on the federal side, USDOT had not secured permanent space at any of the 25 southwest border ports of entry (GAO, 2001). FMCSA began taking steps to obtain space for inspection sites in August 2001, but prior to this point, state and federal inspectors had been occupying temporary space provided by customs (GAO, 2001). The sharing of space limited the ability of inspectors to put trucks out of service as needed, and the temporary sites constructed in some locations would sometimes leave inspectors in harsh weather conditions such as extreme heat and humidity (GAO, 1997).

## Southern Border: Funding

Following the NAFTA panel's ruling that the United States was not in compliance with NAFTA obligations, it became clear that inspection efforts needed to increase at the border to ensure that Mexican trucks were not creating hazards on U.S. roads. Some border states maintained the opinion that because NAFTA was a federal mandate, the federal government had the responsibility to provide funding for facilities and increased border personnel. States were hesitant to commit a significant amount of funding for this effort. The major influx of funding to the border for inspection sites, increased personnel, and other needs was made through the Department of Transportation and Related Agencies Appropriations Act for Fiscal Year 2002 (GAO, 2001).

**In 2002, significant federal funding was made available to southern border states for CMV safety inspection sites, increased personnel, and other needs.**

### ***The Department of Transportation and Related Agencies Appropriations Act for Fiscal Year 2002 (Texas)***

The Department of Transportation and Related Agencies Appropriations Act for Fiscal Year 2002, enacted in December 2001, provided increased funding levels and imposed various requirements that USDOT had to meet for Mexican trucks to begin operating beyond the commercial zones (GAO, 2001). Of the many things laid out in this piece of legislation, the most significant was the level of funding invested in border operations. Under the act, \$140.1 million was appropriated to fund federal and state border safety inspection operations (FMCSA, 2002). Table 1 below reflects the breakdown of this funding.

**Table 1. USDOT and Related Agencies Appropriations Act for Fiscal Year 2002.**

<b>Appropriation</b>	<b>Purpose</b>
\$4 Million	Funding allocated to 60 existing border inspectors
\$13.9 Million	214 new federal inspector positions
\$10 Million	Funding for border assistance of norther and southern borders
\$18 Million	Funding for southern border state inspection personnel and training
\$25.9 Million	Funding to support new requirements established under Section 350 of the legislation (includes \$7 million to purchase scales)
\$56.3 Million	Funding for state border infrastructure (\$54 million) and for improvements to federal facilities (\$2.3 million)
\$12 Million	Funding allocated for Texas border inspection facilities; \$3.2 million for construction of temporary facilities at eight highest volume crossings, \$8.8 million to fund engineering activities for the development of permanent facilities

*Source: U.S. Congress (<https://www.congress.gov>).*

While the table above shows a major influx in funding for border infrastructure and personnel, it also represents a shift in the federal government toward taking more responsibility for border activities. There have been recurring funding packages slated for the border in years since, but in recent years, the requirement to direct funding specifically to border operations has changed. DPS is now allowed to direct certain funding to patrolling activities in other areas of the state. More specifically, the department's current strategy is to redirect personnel from the border facilities to the border communities and highways leading into the interior of Texas to enhance commercial vehicle safety. This strategy relies on USDOT continuing to conduct congressionally mandated commercial vehicle screening and inspections at ports of entry.

### ***Continued NAFTA Compliance Challenges***

Due to the delays in accessing the United States, Mexico challenged the lack of NAFTA compliance by the United States. In 2001, an arbitration panel unanimously concluded that the "blanket refusal" by the United States was clearly non-compliant with the terms agreed to in NAFTA. This ruling authorized Mexico to impose economic sanctions on the United States, but under the Bush Administration, the United States was able to temporarily ward off economic consequences by offering compliance by January 1, 2002 (MacDonald, C., 2009). During this period, the challenges related to cross-border CMV traffic from Mexico became headline news in U.S. politics. Members of the U.S. Congress became highly involved in these conversations with many expressing the need to keep Mexican truck traffic off of U.S. roads for the safety of the traveling public, as well as other potential issues related to illegal drug movement and the transport of immigrants. While the executive branch continued working to come into compliance with NAFTA, in 2001, after threats of pulled funding, Congress took further action to pass Section 350 legislation. Section 350 contained 22 requirements that USDOT had to meet in order to grant operating authority to a Mexican carrier, including a requirement that each truck be physically inspected in Mexico by U.S. inspectors before they could be eligible for a license (MacDonald, C., 2009).

The years following the passage of the Section 350 requirements contained many challenges for NAFTA compliance by the United States. Mexico, initially hesitant to agree to truck inspections in Mexico, finally agreed to this plan in 2006. As USDOT began to move forward again, other issues arose including a court case from environmentalists regarding the need for an environmental impact study of allowing the Mexican carriers into the United States and continued resistance from certain members of Congress. On May 1, 2007, FMCSA announced its plans to initiate a temporary *demonstration project* for long-haul cross-border trucking, which allowed a limited number of Mexican carriers to obtain their license to operate in the United States while the United States worked internally to develop policies and strategies to come into full compliance with the NAFTA terms (MacDonald, C., 2009). This project endured multiple attempts by Congress to pull funding allotted for the program (MacDonald, C., 2009). The most significant challenge to funding the project came with the Dorgan Amendment passed in late 2007. This amendment was included in the 2008 Transportation, Housing and Urban Development, and Related Agencies Appropriations Act and was the greatest challenge to the long-haul cross-border trucking demonstration project launched under the Bush Administration in 2007. While the amendment never became law, there were conflicting interpretations of the amendment language. While the administration and others claimed the language only prevent the launch of a *new* demonstration project, many argued that the legislative intent was very clearly to

pull funding for any attempt at a demonstration project, including the one already implemented prior to the passage of the legislation by Congress (MacDonald, C., 2009). As stated, the amendment did not become law, but this was a very clear example of the political friction and resistance to Mexican truck traffic operating on U.S. roads.

While the long-haul cross-border trucking demonstration project was able to continue until the end of the Bush presidency, it was quickly terminated when President Obama, a key supporter of the Dorgan Amendment, took office. At this time, Mexico responded by imposing \$2.4 billion in tariffs in response to the lack of compliance by the United States (OIG, 1998). With these tariffs, Mexico targeted very specific agricultural and industrial products with the intent to impact a significant number of states and amount of key goods (MacDonald, C., 2009). While President Obama's campaign messaging indicated a lack of support for moving forward under the NAFTA agreement, instead of indicating a need to work out a new agreement, the administration began exploring policy solutions to address some of the issues for cross-border truck traffic from Mexico (MacDonald, C., 2009). In April of 2011, the administration announced the launch of a new pilot program for long-haul carriers. With the goal of increasing safety requirements from previous crossing projects, trucks from Mexico began crossing the border again in October 2011 (Frittelli, J., 2014). When the pilot program ended in 2014, certain trucking companies were able to continue long-haul operations in the United States.

## **Forming of CMV Safety Inspection Agencies**

### ***FMCSA***

Prior to the establishment of FMCSA, commercial vehicle safety oversight was housed in the Office of Motor Carrier (OMC) Safety Program under the Federal Highway Administration (FHWA). As the need to enforce safety standards for commercial vehicles grew, there were questions of whether the motor carrier safety program would be more successful under a different agency in USDOT with less of a focus on highways (OIG, 1999). In a report published in 1999, the Office of the Inspector General sighted many weaknesses in current enforcement measures for motor carriers by OMC. These included issues with limited enforcement actions for violations, minimal increased consequences for repeat violations, issues with delayed data entry from states to inform crash data, weak performance metrics and goals that do not focus on decreasing fatalities, and potential conflicts of interest between employees and industry (OIG, 1999).

After considering data and the highway-centric goals of FHWA, FMCSA was established pursuant to the Motor Carrier Safety Improvement Act of 1999 (49 U.S.C. 113). It became operational under USDOT on January 1, 2000, with the mission of "prevent[ing] commercial motor vehicle-related fatalities and injuries" (USDOT, n.d.).

### ***Texas DPS***

Originally housed under the Texas Highway Department (now TxDOT), the first Texas CMV inspections began in the late 1920s in response to increasing traffic on Texas roadways and the need to enforce trucking regulations. In 1929, there were 18 license and weight inspectors and one chief inspector authorized by the Texas legislature. This group was expanded

to 120 men two years later, and by 1935, due to issues with organization and enforcement in the current department, the legislature created the Texas DPS. In 1938, this group was named the License and Weight Service under DPS. In September of 2003, the group's name was changed to Commercial Vehicle Enforcement, and there are now 474 commissioned officers, 143 non-commissioned vehicle inspectors, and 78 non-commissioned compliance review investigators (USDOT, n.d.).

## Co-located Border Safety Inspections

Although federal and state CMV safety inspection facilities are generally located adjacent to each other, in which case the trucks are screened and inspected first by federal agents followed by state officials, at some locations, state and federal inspections take place at the same location (co-located). For instance, Arizona Department of Transportation (ADOT) and

**Although federal and state CMV safety inspection facilities along the southern border are generally located adjacent to each other, at some locations in Arizona and California they take place in the same location.**

FMCSA share space at the Nogales-Mariposa LPOE. Both agencies conduct their safety inspections under the same roof that is owned by the state. In 2019, FMCSA and GSA announced their intent to build brand new FMCSA inspection facilities at various locations including Mariposa LPOE. However, a significant opposition was raised mainly because it was considered as an extra inspection and would result in extra border crossing delays for trucks. Due to opposition and various comments on the scope of the work, GSA modified the proposed action to develop co-located truck inspection facilities within existing state-operated inspection facilities instead of having dedicated federal inspection facilities (Federal Register, 2020).

Similar to Nogales, at Otay Mesa and Calexico ports located in California, GSA intended to build separate truck inspection facilities to be used by FMCSA. However, based on scoping comments received on the Environmental Impact Statement, GSA modified the proposed action to develop co-located truck inspection facilities within existing state-operated inspection facilities to the extent practicable (GSA, 2022).



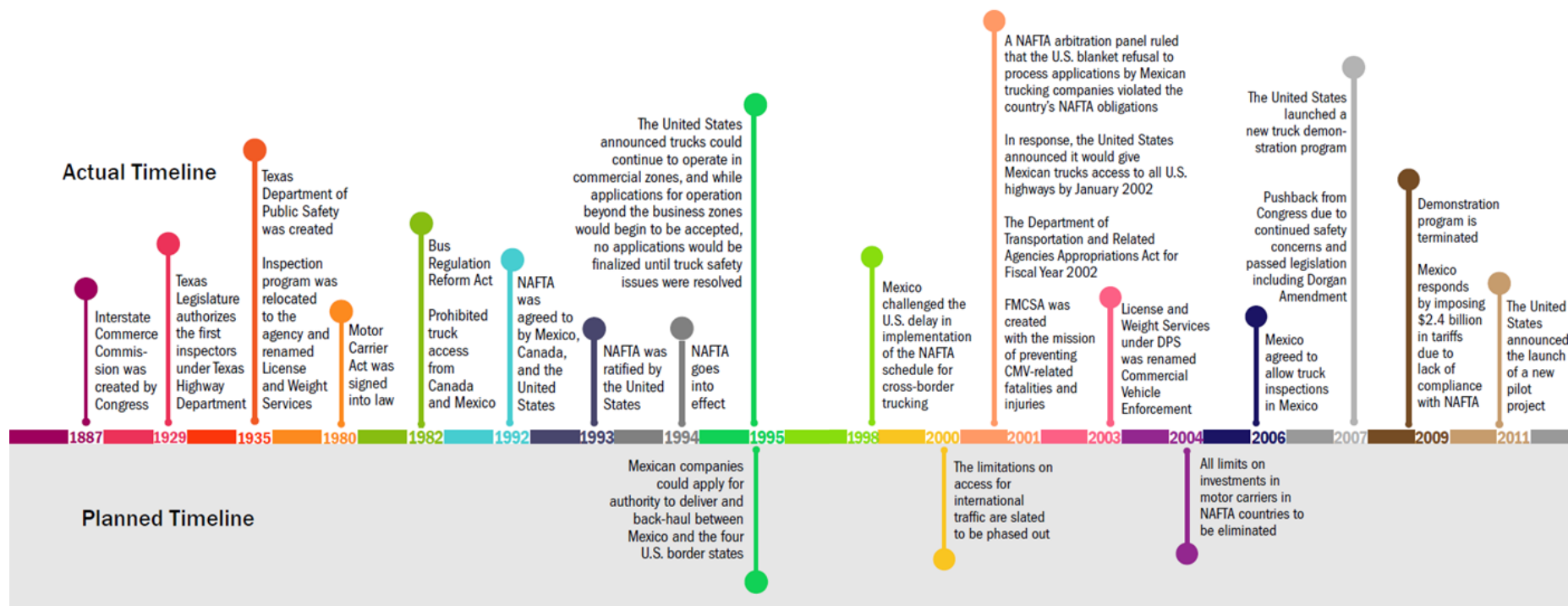


Figure 2. Timeline.





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## **CHAPTER 4:**

# **FEDERAL AND STATE CMV INTERNATIONAL BORDER SAFETY INSPECTION PROCESSES**

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This chapter presents the border crossing process with a special focus on the safety inspections conducted at federal and state compounds. Moreover, key statistics of border-crossing safety inspections are analyzed through the data gathered from FMCSA and Texas DPS.

## **BORDER CROSSING PROCESS**

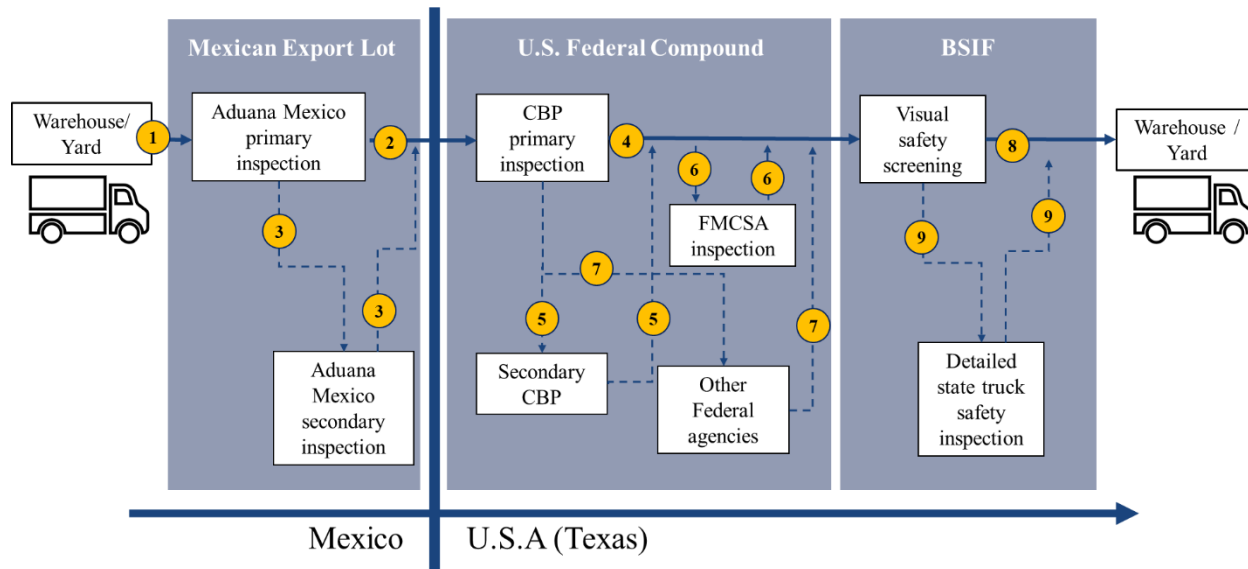
The border crossing process includes several security and safety inspections performed by different federal and state agencies (see Figure 3). The typical truck northbound border crossing process begins with an authorized CMV carrier picking up goods to be imported to the United States on the Mexican side of the border (Move #1 in Figure 3). Commonly, goods are picked from a close-by warehouse or truck yard before crossing the border and left within the commercial zone in the United States. In Texas, commercial zones are defined by different parameters including mileage and population and may differ for each region. This overall activity is called drayage.

The shipper, the owner of the goods, or the carrier, who transports, files the necessary information to CBP through the e-manifest program. E-manifest is a term used to describe the electronic conveyance of freight information to custom officials prior to a shipment arriving at a border. At the international bridge, the crossing truck first passes through a Mexican inspection facility operated by the Mexican customs (Aduana; #2). A very low rate of the shipments is randomly selected for a secondary more detailed inspection (#3). When the truck crosses the bridge, the first contact of U.S. officials are the CBP officers at the CBP Primary Inspection Booths. A CBP officer checks the e-manifest and decides whether to let the truck continue in the federal compound (#4) or to a detailed secondary CBP inspection. CBP secondary inspection may include VACIS or a physical inspection to search for contraband items (#5). Inside the federal compound, other agencies may perform inspections, which may include:

- FMCSA performs safety screenings and inspections to ensure that trucks, trailers, and drivers entering the country meet specific USDOT safety compliance requirements (#6).
- U.S. Department of Agriculture performs screening of agricultural cargo (#7).
- The Food and Drug Administration (FDA) conducts inspections for the compliance of the products with the same FDA laws and regulations (#7).
- The Environmental Protection Agency inspects the vehicles and engines and makes sure they are all certified and there is no violation of the Clean Air Act (#7).

After the truck leaves the federal compound, it continues to the BSIF operated by DPS. DPS officers inspect the truck and check the driver's credentials to ensure that both the vehicle and driver meet safety regulations. Drivers may be allowed to leave the facility (#8), or if the initial inspection finds any violation, they may be directed to a more detailed state safety inspection at a designated location in BSIF (#9). For the majority of the ports of entry (POEs) in Texas, BSIF is

located adjacent to the federal compound. After leaving the BSIF, the driver and the truck are considered clear; the truck is allowed to enter the country and ready to head to the destination.



**Figure 3. Border Crossing Process for Trucks at Texas POEs.**

## BORDER SAFETY INSPECTION PROCESS

Safety inspections at the federal and state level follow the guidance from CVSA for uniformity. CVSA is a non-profit association aiming to achieve uniformity, compatibility, and reciprocity of CMV inspections and enforcement by certified inspectors committed to driver and vehicle safety through the North American Standard Inspection Program (CVSA, 2021). This program was created by CVSA as the roadside inspection process. There are eight levels of North American Standard Inspections. Based on the collected data and field interviews, it is estimated that over 75 percent of the inspections at the border (federal and state) follow Level I procedure. Level I, the most comprehensive, has 37 steps that involve the examination of the motor carrier and driver's credentials, record of duty status, the mechanical condition of the vehicle, and any hazardous materials/dangerous goods that may be present. CVSA decals are issued only if the vehicle satisfactorily passes the inspection. CVSA inspection decal is a colored sticker featuring the year in which the inspection was performed with the CVSA trademarked logo. CVSA inspection decals are valid for the month of issuance and two more upcoming months. Therefore, inspectors quickly identify the month and the year it was issued.

**Federal and state CMV safety inspections at the southern border follow the CVSA North American Standard Inspection Program, with most of them following the most comprehensive, the CVSA Level I inspection procedure.**

The selection of the trucks to be sent to the secondary inspection at the federal compound and BSIF are manual processes. Both FMCSA and DPS inspectors screen entering trucks for compliance, conduct a risk assessment of each vehicle, and select for detailed safety inspections

those that are deemed a higher risk of non-compliance. Figure 4 demonstrates the examples of safety inspections conducted at Ysleta-Zaragoza and Bridge of the Americas POE.

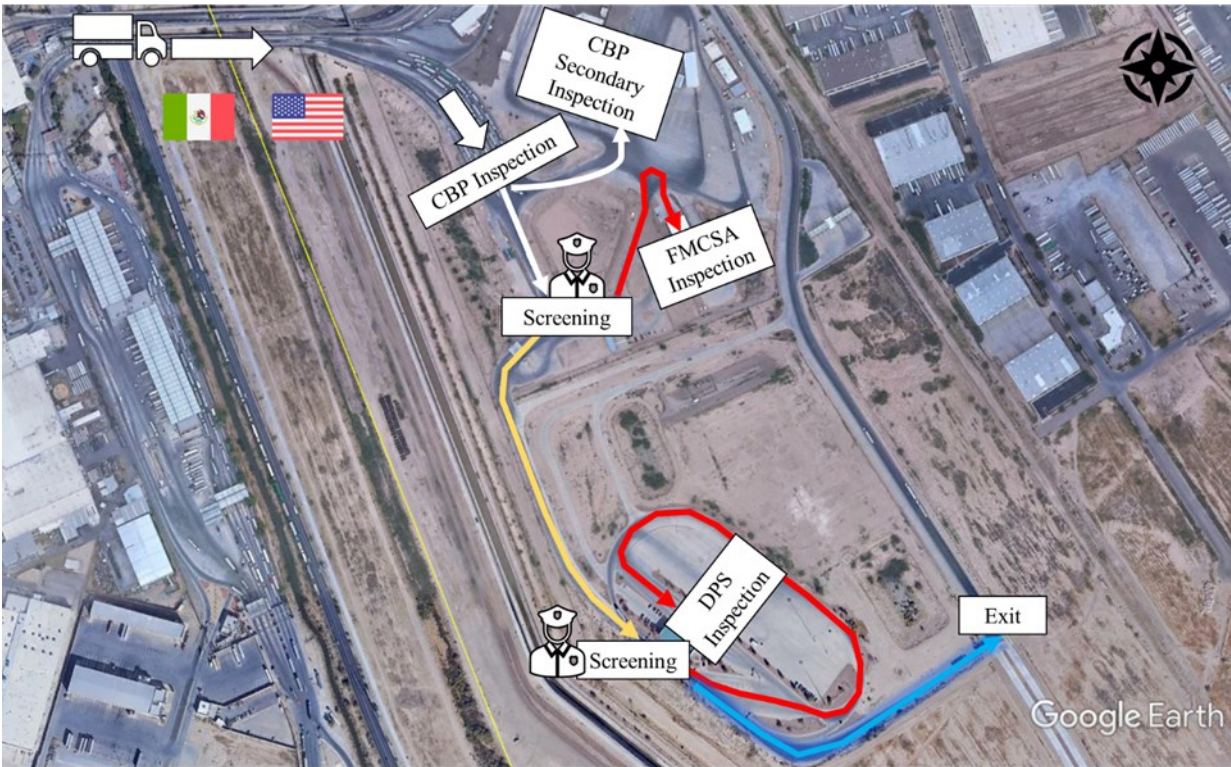
After trucks are cleared from CBP inspection, they may be screened by FMCSA inspectors. FMCSA inspectors screen trucks as they move through the facility and visually check for expired CVSA decals, low tires, brakes, lights, and anything obviously out of order. After screening, the truck may be cleared to continue to DPS facility (Figure 4—yellow path) or may be selected for a detailed federal safety inspection (Figure 4—red path) at the federal inspection facility (Figure 5). If a truck has an expired CVSA decal, it is more likely to be asked for a detailed inspection. All FMCSA inspectors are CVSA trained and certified and can provide CVSA decals after their inspection. On-site interviews highlighted that each FMCSA inspector on average conducts four to five inspections per day, and an average inspection takes up to one hour. Vehicles not passing the FMCSA inspection are deemed to be out of service and are placed in a designated out-of-service area. In some cases, violations may be repaired on-site at some locations. If they cannot be fixed on-site, the truck will be towed to an offsite repair facility.<sup>2</sup> Out-of-service trucks are prohibited to operate until the out-of-service defects are remedied or repaired. This practice is conducted in coordination with CBP and includes the share of information of the expected tow-truck to enter the facility. Violations are listed on the inspection report, and FMCSA has authority to issue notices of claim for civil penalties for violations discovered during the inspection.

After the truck leaves the federal compound, it travels to the state compound (yellow path in Figure 4). At the BSIF, DPS officials screen and inspect the trucks and the driver's credentials to ensure that the vehicle and the driver meet vehicle safety regulations defined by the State of Texas. At the virtual and on-site interviews, it was further clarified that the inspections conducted by FMCSA and DPS are the same with the exceptions of size and weight. Those are state regulations and governed by each state, in this case by Texas DPS. Similar to federal inspections, at state compounds trucks are first screened for expired CVSA decals, tires, lights, and other obvious violations. The DPS inspector who screens the truck decides whether to send it to the BSIF (Figure 6) for a detailed state inspection (Figure 4—red path) or to the exit of the state compound (Figure 4—blue path). DPS inspectors have the right to issue citations and warnings. Trucks that failed to pass the state inspection are asked to be fixed or towed from the facility. Trucks are not allowed to stay overnight at the BSIF. Most of the inspections held at BSIF are Level 1 inspections and generally take 30 to 45 minutes on average per truck.

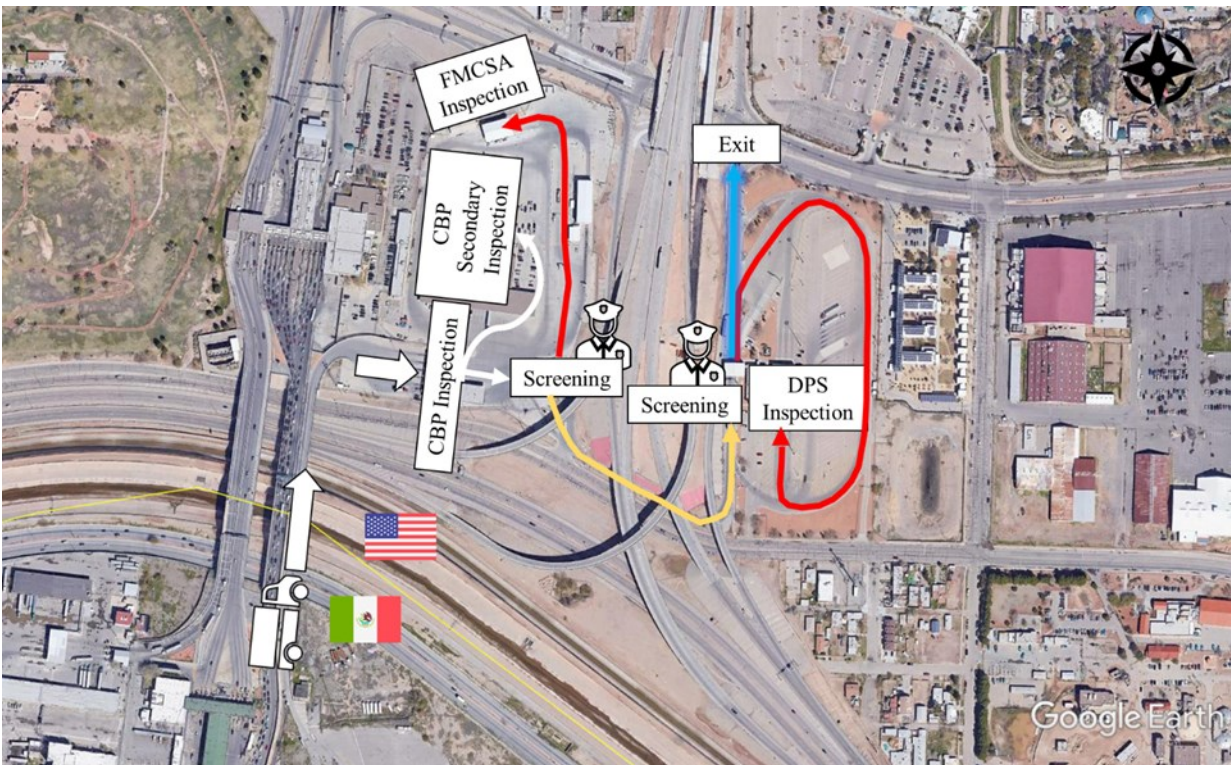
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<sup>2</sup> Loaded trucks are normally towed to a facility on the U.S. side to be repaired to avoid export/import issues related to the cargo.





(a) Ysleta-Zaragoza LPOE Layout



(b) BOTA LPOE Layout

**Figure 4. Mexico to U.S. Northbound Truck Crossing Layout.**



The use of technology for safety inspections remains limited at the border. Most of the trucks crossing the border are short haul drivers and are not required by FMCSA to have electronic logging devices (ELDs), so the use of ELD technology for checking hours of operations is still not under consideration. FMCSA has a performance measurement system that assesses trucks and drivers and inputs the outcomes into a tracking system called Safety and Fitness Electronic Records. This provides safety information of the carriers to FMCSA and DPS inspectors during their inspections. Considering the border crossing safety inspections, there is no formal coordination between federal and state agencies. On the other hand, field interviews further clarified that there is ongoing communication to keep the overall inspection process safer and effective. One key finding from the field visits and multiple virtual meetings with both agencies is that if a truck is inspected by FMCSA and cleared, it is not likely to be inspected by DPS inspectors. In other words, it can clearly be concluded that there is no safety inspection duplication for a single truck.

**If a CMV is inspected and cleared by FMCSA, it is not likely to be inspected by Texas DPS—that is, federal and state CMV inspections do not duplicate each other.**



**Figure 5. Federal Inspection Facility (Ysleta-Zaragoza LPOE).**



**Figure 6. State Inspection Facility (BOTA LPOE).**

## **BORDER SAFETY INSPECTIONS AND STATISTICS AT TEXAS LPOES**

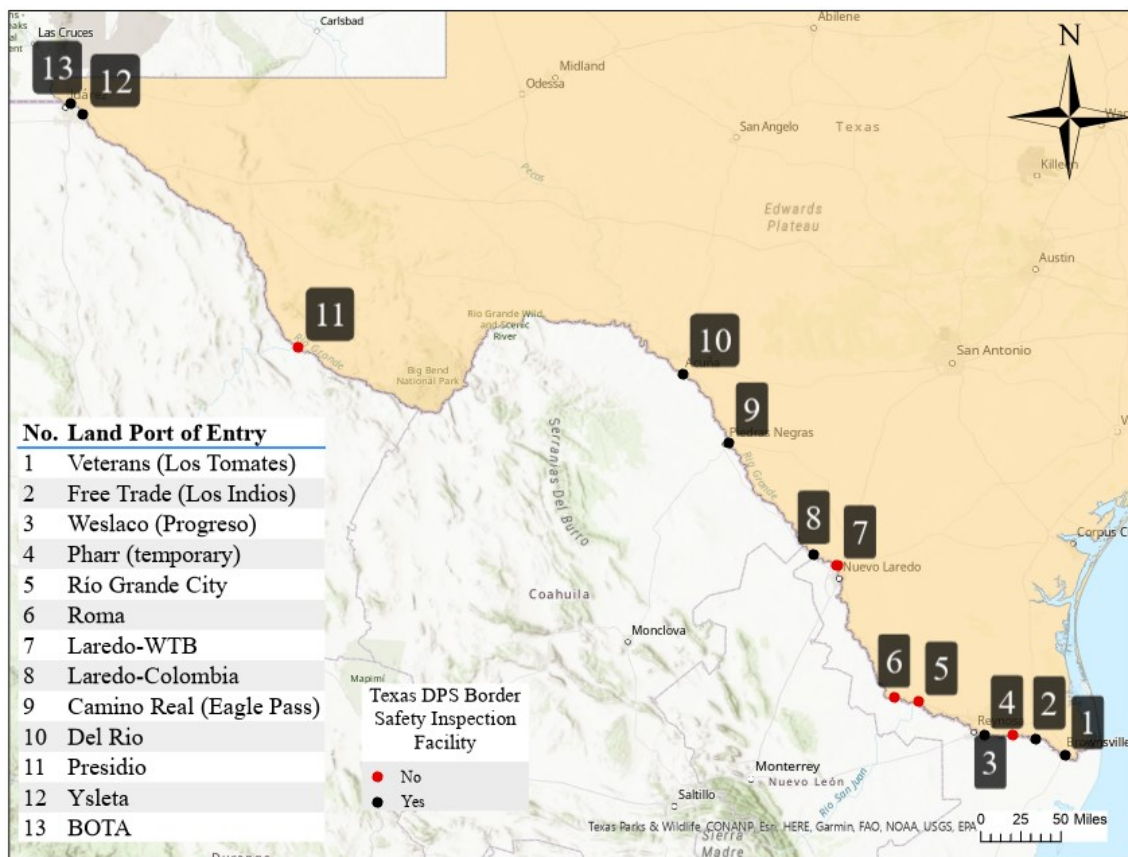
Federal and state agencies in the United States have been continuously working to ensure that all CMVs operating in the United States exceed federal and state safety regulations. The safety inspection facilities located at the ports have a critical role in determining whether the driver and/or the CMV entering the United States are in compliance with federal and state safety regulations. Only a small portion of the CMVs crossing the border are selected for a detailed safety inspection at each inspection facility. This section reviews the statistics gathered from federal and state agencies, including the number of inspections conducted at several Texas facilities.

### **Safety Inspections at Texas Commercial LPOEs**

There are thirteen commercial LPOEs between Texas and Mexico. FMCSA currently conducts CMV safety inspections at all 13 of them. On the other hand, DPS currently operates BSIFs at eight of the Texas-Mexico LPOEs: Del Rio, Camino Real (Eagle Pass), BOTA, Ysleta, Laredo-Colombia, Free Trade (Los Indios), Veterans (Los Tomates), and Pharr (temporary location). The remaining five commercial LPOEs that do not have a BSIF include the Laredo-World Trade Bridge (WTB), which is the largest LPOE in the country by CMV traffic volume, and the four smallest LPOEs in the state by traffic

**The Laredo-WTB is the only major commercial LPOE in Texas that does not currently have a DPS BSIF.**

volume: Weslaco (Progreso), Roma, Presidio, and Rio Grande City. Figure 7 below illustrates the locations of all 13 Texas-Mexico commercial LPOEs and indicates those where DPS currently operates a BSIF.



**Figure 7. DPS Border Safety Inspection Facilities at Land Ports of Entry within Texas.**

## FMCSA Inspections

At the federal level, USDOT's FMCSA performs inspections of commercial vehicles within federal compounds at U.S. border crossings. FMCSA inspectors may visually screen a truck cleared by CBP inspectors and then decide if the truck should be allowed to leave the federal compound or be diverted to a detailed federal safety inspection. FMCSA officials provided 2019 data of two border crossings: El Paso and Del Rio. El Paso data include the Ysleta-Zaragoza and BOTA ports' information together. The data include the number of trucks inspected in 2019. FMCSA mentioned that COVID-19 policies impacted the federal safety inspections significantly; therefore, 2019 would be the best year to reflect FMCSA's operations. It has been reported that at El Paso ports, 11,802 inspections were conducted in 2019. On the other hand, in Del Rio, 3,317 safety inspections were reported. Considering the overall number of truck crossings at those ports, it can be concluded that slightly less than 2 percent of the trucks were inspected by FMCSA.

**Only about 2 percent of CMVs entering the United States and screened by FMCSA are selected for a federal safety inspection.**



## DPS Inspection Statistics

BSIFs in Texas are operated by DPS. After a truck is cleared from the federal compound, DPS inspectors screen the truck and decide whether it needs further inspection at the BSIF. Most of the inspections conducted at the BSIF are Level 1 inspections, including checking engines, brake systems, axles, etc. Researchers gathered and analyzed three years of daily state inspection numbers (2019, 2020, and 2021) obtained with the help of DPS officials. Original data have the information of:

- Day of inspection.
- Number of total inspections on a particular day.
- Number of inspections at different levels of inspection.
- Daily average duration of inspections.
- Number of vehicles and trailers inspected.
- Number of vehicles reported as out of service.
- Number of vehicles reported as out of service (Mexico-domiciled).

Table 2 summarizes the gathered data with respect to the locations of the BSIF, including total number of days reported with the total number of inspections conducted. The Ysleta-Zaragoza port had the greatest number of inspections in 2019 and 2020 followed by the Laredo Colombia international bridge. In 2021 Colombia had the highest number of inspections. At all locations the number of inspections reduced significantly in 2020 due to the COVID-19 pandemic.

**Table 2. DPS Inspections at Texas POEs.**

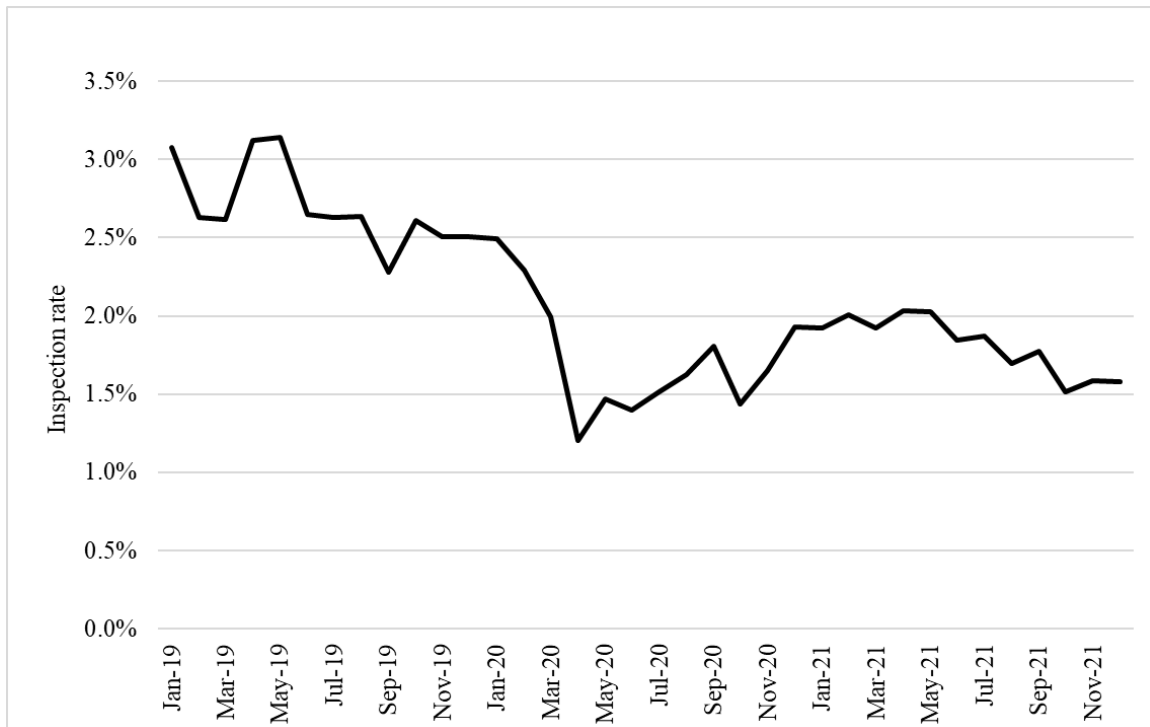
Location	Total Days of Inspection—Total Inspections		
	2019	2020	2021
<b>Del Rio</b>	242—2,796	242—1,746	227—1,596
<b>Eagle Pass</b>	255—7,008	254—5,177	287—6,765
<b>BOTA</b>	273—18,310	259—11,397	257—12,447
<b>Ysleta</b>	311—24,357	305—19,724	309—18,338
<b>Colombia</b>	254—23,727	257—15,531	256—19,011
<b>Los Indios</b>	231—1,359	212—893	248—2,123
<b>Los Tomates</b>	311—17,375	300—11,093	297—11,410
<b>Pharr</b>	310—22,846	260—9,933	312—14,774
<b>World Trade</b>	No BSIF	No BSIF	No BSIF



According to BTS, within the selected three-year period, over 13.7 million trucks entered the United States using the ports located in Texas. At all ports, excluding the Laredo-WTB, DPS agencies conducted 278,736 state inspections. In other words, 2 percent of the trucks that entered the United States have gone through a detailed state inspection at Texas BSIFs.

**Only about 2 percent of CMVs entering Texas and screened by DPS inspectors are selected for a state safety inspection.**

Figure 8 demonstrates the monthly rate of DPS inspections in total crossings at Texas ports from January 2018 to December 2021.



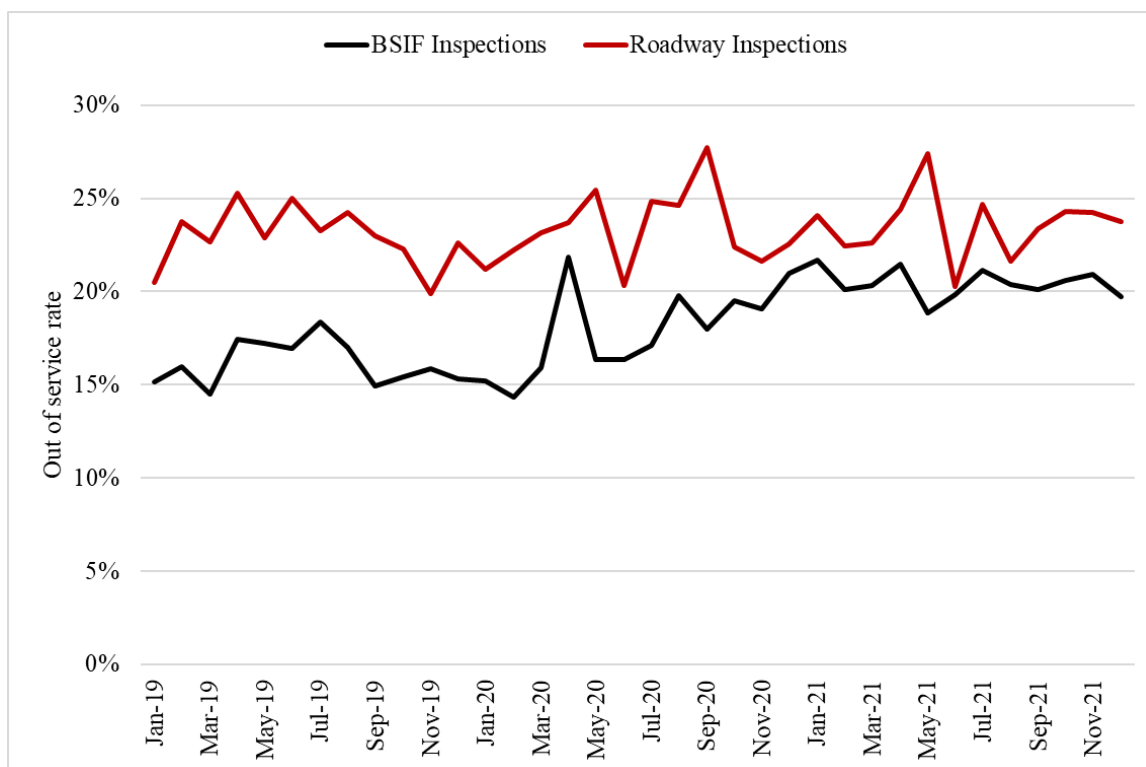
**Figure 8. Rate of DPS Inspections in Total Truck Crossings.**

After the trucks are inspected based on the federal and state regulations, trucks that fail to comply with standards are reported as out of service. The ratio of trucks failed to the total number of trucks inspected is reported as the out-of-service rate. This has been used as a common performance measurement to demonstrate the safety of trucks on U.S. roadways. For example, CVSA conducts annual international road checks and reports the out-of-service rates. The last three years of out-of-service rates were reported as (CVSA, 2021):

- 2019, 21.5 percent.
- 2020, 22.2 percent.
- 2021, 20.9 percent.

Similarly, researchers checked the BSIF out-of-service rates for the three-year period.<sup>3</sup> Using the data gathered from DPS, researchers differentiated the BSIF inspections and some other roadway inspections located at the major Texas roadways on the route of the border-crossing traffic (i.e., Devine, Falfurrias, Laredo, New Waverly). As demonstrated in Figure 9, the out-of-service rate stayed under 25 percent at BSIF inspections and 30 percent at the other roadway inspections. Considering the CVSA and DPS roadway inspections at U.S. roadways, it can be concluded that out-of-service rates at BSIFs are the same or lower compared to inspections within the United States.

Since 2019, out-of-service rates of CMVs inspected at the Texas-Mexico border have averaged about 20 percent, well below out-of-service rates for CMVs inspected across Texas and U.S. highways (about 23 and 21 percent respectively), a significant improvement when compared to the early NAFTA years.

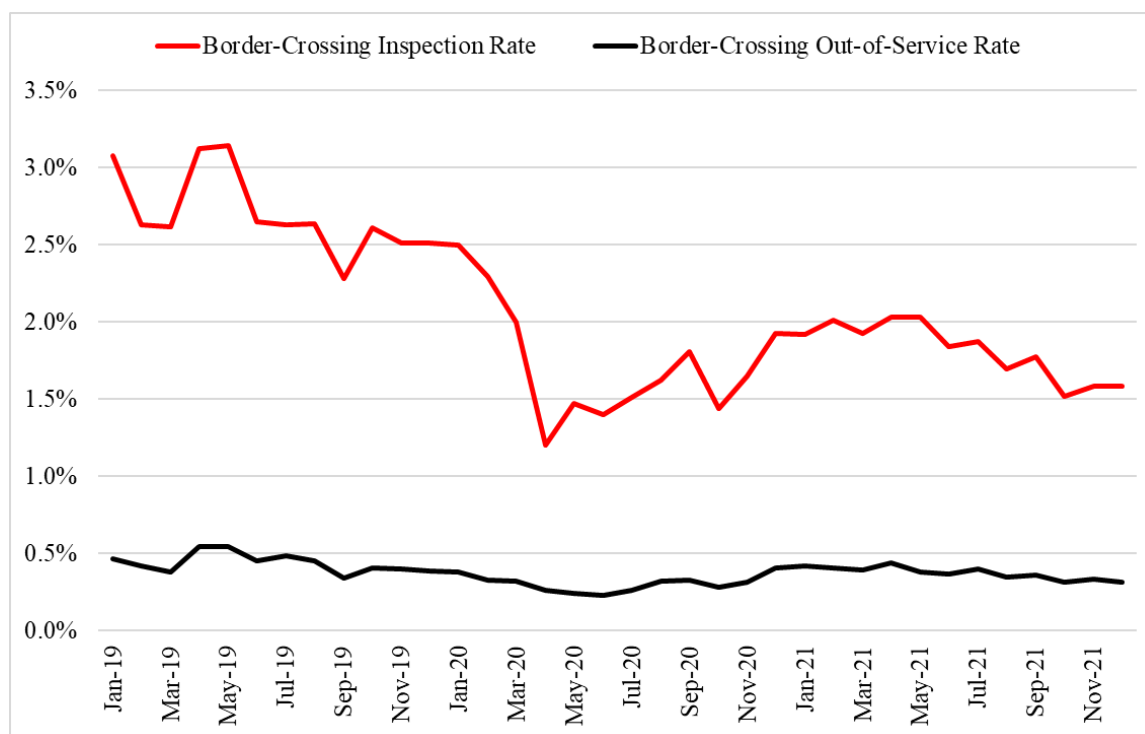


**Figure 9. Out-of-Service Rates Based on Location of DPS Inspections.**

The increase of the out-of-service rate at BSIFs after mid-2020 drew the researchers' attention (Figure 9). The out-of-service rates were calculated based on the number of trucks inspected in the facility. Therefore, any significant reduction in the number of inspected vehicles might yield changes in the reported out-of-service rates. This study further explored the data and checked the impact of the COVID-19–related border restrictions, temporal change in inspection policies due to the pandemic, and the reduction of truck crossings. Figure 10 was plotted to

<sup>3</sup> For more details, please see Appendix A.

demonstrate the change in the number of inspections and out-of-service rates with respect to the total number of truck crossings at Texas POEs. Although inspection rates reduced to some extent (below 1.5 percent) with the COVID-19 pandemic, the out-of-service rate for the entire number of truck crossings remained within 0.5 percent without a significant change. In other words, less than 0.5 percent of the trucks that crossed the border were reported as out-of-service between 2019 and 2021.



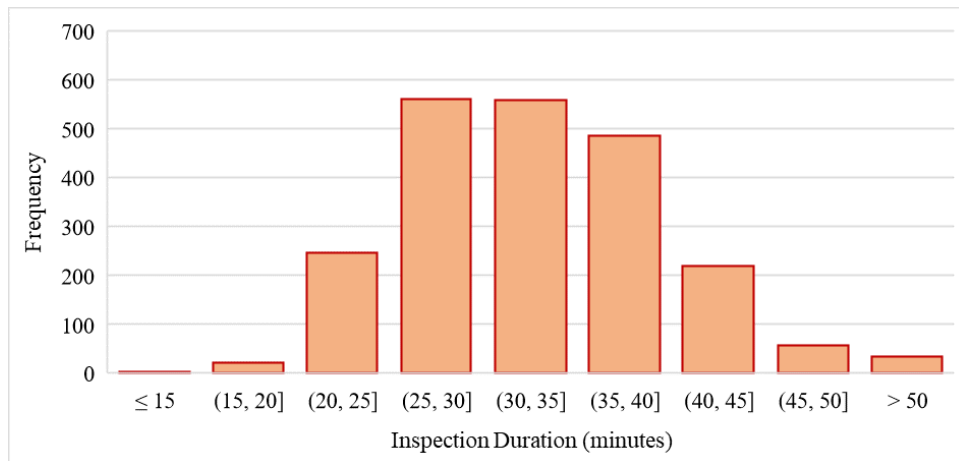
**Figure 10. Border-Crossing, Inspection, and Out-of-Service Rates.**

DPS provided the data for the average duration of daily inspections, and this study further analyzed the data and checked whether there was any significant change in durations in the given period. Table 3 lists the median and average inspection durations for 2019, 2020, and 2021. Figure 11 demonstrates the frequencies of average daily inspection durations for three years.<sup>4</sup> It can be concluded that, in the last three years, the durations of the safety inspections conducted at Texas BSIFs remained around 33 minutes on average.

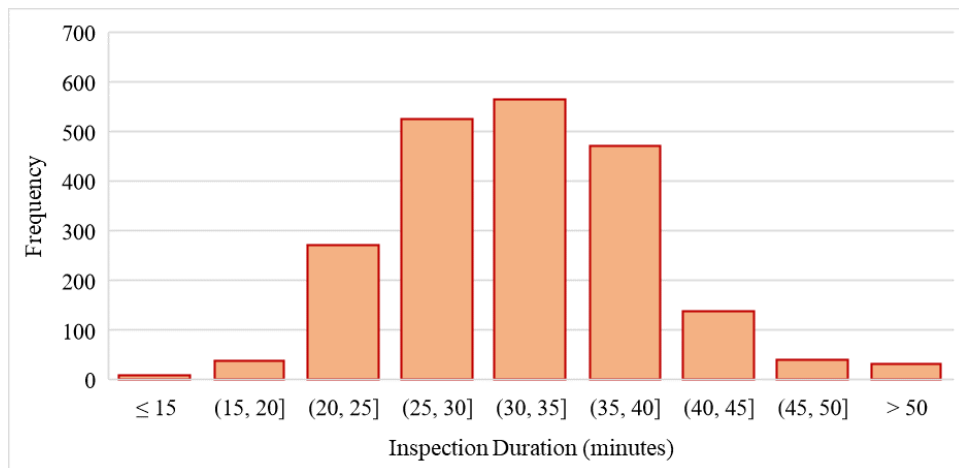
**Table 3. Summary of DPS Inspection Durations at Texas BSIF.**

Year	Median	Average
2019	33 minutes	33.5 minutes
2020	33 minutes	32.7 minutes
2021	33 minutes	33.2 minutes

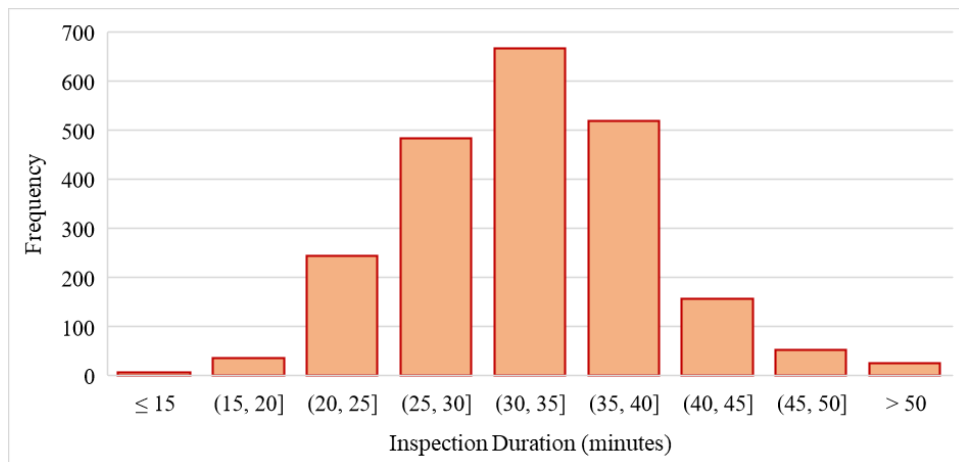
<sup>4</sup> For more details, please see Appendix A.



(a) 2019



(b) 2020



(c) 2021

**Figure 11. DPS Average Inspection Durations at Texas BSIFs.**

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## **CHAPTER 5:**

# **FEASIBILITY OF CO-LOCATING STATE AND FEDERAL CMV SAFETY INSPECTIONS**

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In analyzing the feasibility of co-locating state and federal CMV safety inspections at Texas-Mexico international LPOEs within the limitations of this study, researchers considered two sets of criteria. The first one involved conducting a quantitative analysis of the share of average CMV border crossing times that can be attributed to federal and state safety inspection to provide perspective on how sizable the contribution of safety inspections to average crossing times is. The second one involved conducting a qualitative analysis of the input and perspectives dealing with CMV border safety inspection goals and objectives gathered from representatives of DPS and FMCSA through virtual meetings and site visits, as well as their perspectives on co-location. Researchers organized these quantitative and qualitative findings using a strengths, weaknesses, opportunities, and challenges (SWOC) analysis framework and used it to develop recommendations about strengths and opportunities for co-location at Texas-Mexico LPOEs.<sup>5</sup>

This chapter presents the results of this analysis. The first section deals with the analysis of CMV border safety inspections in the context of average CMV border crossing times. The second section reports on the information gathered from DPS and FMCSA regarding border safety inspection priorities and plans, and their perspectives on co-location of inspections. Finally, the third section presents the SWOC analysis.

## **SAFETY INSPECTIONS AND CMV BORDER CROSSING TIMES**

Border crossing time is the time it takes for a CMV to go through the entire border crossing process described in Chapter 4. Using Figure 3 as a reference, the border crossing time for a CMV is the time elapsed from the moment it joins the queue to enter the Mexican Export Lot until the moment it exits the Texas BSIF. Thousands of CMVs cross the border every day and each one of them experiences a unique border crossing time. The metric that is most used by stakeholders to describe border crossing times is the average border crossing time, which is simply defined as the average of the crossing times experienced by all CMVs using a facility within a given period (e.g., hourly, daily, monthly).<sup>6</sup>

## **Average Border CMV Volumes and Crossing Times at Texas-Mexico LPOEs**

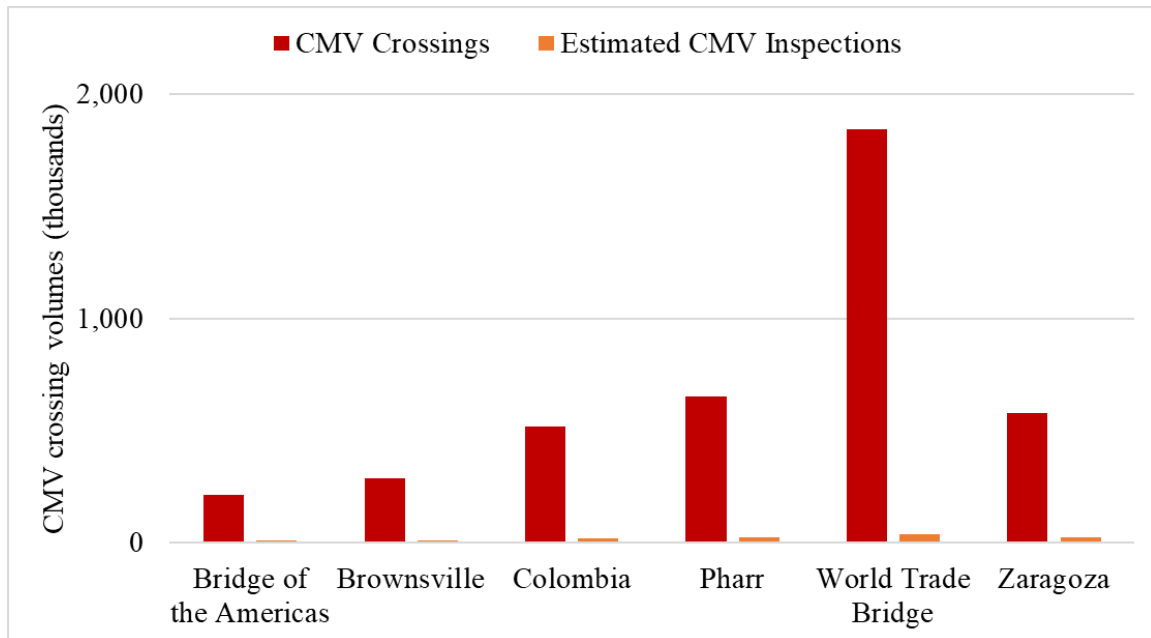
Border crossing traffic volumes and border crossing times are two closely interrelated variables. Since the federal and state CMV safety inspections are part of the border crossing process, it is important to put them in the context of the average border CMV traffic volumes and crossing times. Figure 12 shows the number of CMV border crossings along with the estimated

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<sup>5</sup> A SWOC analysis is essentially the same as a strengths, weaknesses, opportunities, and threats analysis, but rather than focusing on threats, a SWOC analysis focuses on challenges.

<sup>6</sup> Rajbhandari, R., Villa, J., Macias, R., and Tate, W. (2012). Measuring border delay and crossing times at the US-Mexico border: Part II. Guidebook for analysis and dissemination of border crossing time and wait time data (No. FHWA-HOP-12-014). United States. Federal Highway Administration.

number of federal and state safety inspections at Texas LPOEs in 2019.<sup>7</sup> The WTB in Laredo shows the largest CMV volumes at 1.84 million vehicles per year and an estimated 37,000 federal safety inspections. (There are currently no state inspections at this location.) On the other hand, BOTA in El Paso and the Veterans-Los Tomates bridge in Brownsville have 214,000 and 288,000, respectively, and an estimated 9,000 and 12,000 federal and state safety inspections.

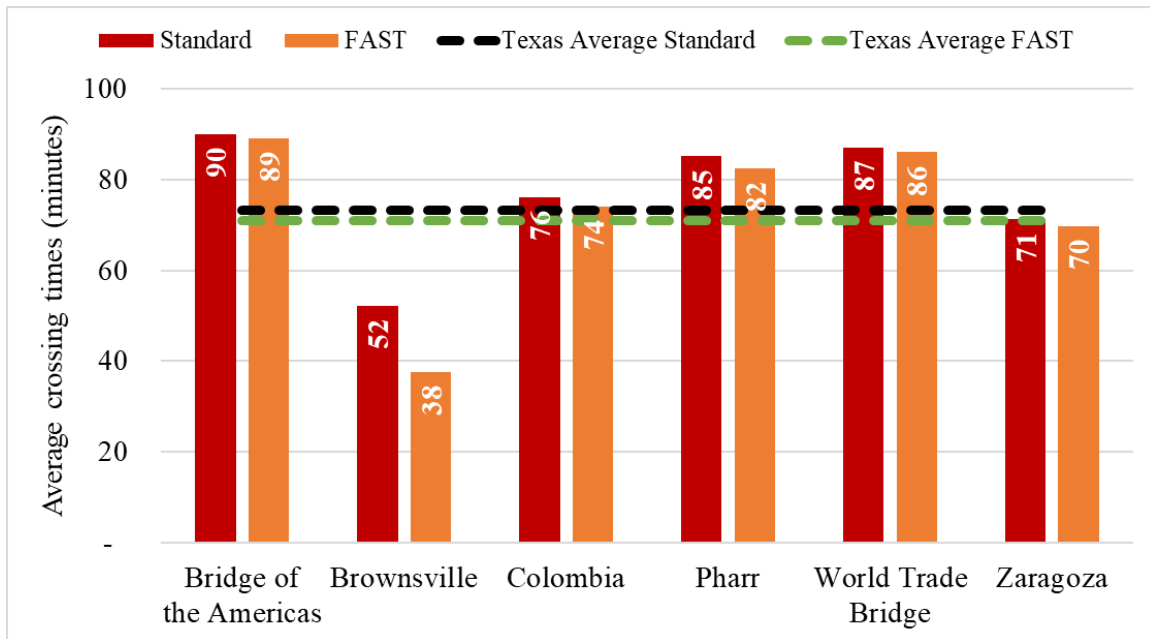


Source: Bureau of Transportation Statistics and TTI estimations (see footnote).

**Figure 12. Estimated CMV Volumes and Safety Inspections at Texas LPOEs (2019).**

Figure 13 shows the average CMV border crossing times at Texas LPOEs for Standard and Free and Secure Trade (FAST) program CMVs in 2019. Border crossing time information for these crossings was collected using the BCIS. The Texas average for both Standard and FAST hover at around 70 minutes. Individually, BOTA, Pharr, and WTB had the highest crossing times, ranging between 85 and 90 minutes for Standard and between 82 and 89 for FAST. On the other hand, the Brownsville bridge had the lowest crossing times, with 52 minutes for Standard and 38 minutes for FAST.

<sup>7</sup> The number of safety inspections in this figure are an estimate for illustrative purposes. They were calculated on generic inspection rate estimates provided by DPS and FMCSA officials during field visits using an average of 4 percent of the CMV crossings (about 2 percent FMCSA and 2 percent DPS) for all crossings, except for the Laredo WTB, where there is no BSIF or permanent state inspection. For official statistics see Chapter 4.



**Figure 13. Average CMV Border Crossing Times at Texas LPOEs (2019).**

### How Do CMV Safety Inspections Influence Average Border Crossing Times?

The findings presented in Chapter 4 suggest that there are two ways in which federal and state CMV safety inspections influence average border crossing times. These are:

- First, only a small fraction of the CMVs entering Texas are subject to a comprehensive safety inspection by either FMCSA or DPS.
  - CMVs crossing the border are visually screened while in motion by FMCSA personnel as they transit through the U.S. federal compound and are also visually screened by DPS personnel while transiting through the Texas BSIF.
  - Only a small fraction (about 2 percent on average) of the CMVs entering the U.S. federal compound are selected by FMCSA for a comprehensive, CVSA Level 1 inspection, which on average adds about one hour to the border crossing process.
  - Similarly, only a small fraction (about 2–5 percent on average) of the CMVs entering the Texas BSIF are selected by DPS for a comprehensive, CVSA Level 1 inspection, which on average adds about one hour to the border crossing process of each individual vehicle selected for inspection.
- Second, FMCSA and DPS safety inspections do not duplicate each other. In fact, they complement each other by providing expanded vehicle screening, resulting in high CMV safety compliance when compared to statewide averages.
  - CMVs entering a Texas BSIF immediately after having been inspected by FMCSA are not required to go through a DPS inspection unless the visual screening suggests a potential violation of state size and weight limits—which are not monitored by FMCSA because there are no federal size and weight limits.
  - DPS statistics show that out-of-service rates for CMV inspections conducted at Texas BSIFs are consistently lower than out-of-service rates for CMV roadway

inspections, suggesting that current combined FMCSA and DPS safety inspection rates at Texas-Mexico LPOEs are effective in maintaining compliance levels that exceed statewide averages.

The findings suggest that any impact that the combined federal-state CMV safety inspection process may have on average border crossing times is not primarily driven by the inspections taking place at separate facilities, but rather by the rate at which vehicles are inspected (i.e., the share of CMVs that are selected for inspection). In other words, simply co-locating the federal and state safety inspections is not likely to result in border crossing time savings, unless the rate at which CMVs get inspected is significantly decreased.

### What Is the Impact of CMV Safety Inspections on Average Border Crossing Times?

The question of reducing the impact of the FMCSA and DPS CMV safety inspections on average crossing times is more about whether the potential costs of reducing the rate of inspections outweigh the potential benefit measured in terms of shorter crossing times. Experience shows that decreasing the rate at which vehicles are inspected may lead to reduced CMV safety compliance and thus increased risk to the public. On the other hand, the potential benefits can be measured by estimating the contribution of the existing safety inspection process to average border crossing times.

The question of reducing the impact of the FMCSA and DPS CMV safety inspections on average border crossing times is more about whether the potential costs of reducing the rate of inspections outweigh the potential benefit measured in terms of shorter crossing times.

The contribution of the CMV safety inspection process to average border crossing times can be estimated as a function of: (a) the total number of CMVs using the facility, (b) the average border crossing time for all CMVs, (c) the number of CMVs being inspected (by FMCSA and DPS), and (d) the average duration of the safety inspection process. Using the information collected for these variables, a simplistic approach was used to estimate the portion of the average border crossing time attributed to the safety inspection process and is summarized in Equation 1 below.

$$\Delta t_i = \frac{V_i \times t_i}{V} = \frac{(V \times r_i) \times t_i}{V} = r_i \times t_i \quad (1)$$

Where:

- $\Delta t_i$  = Average border crossing time attributed to federal and state safety inspections (measured in minutes or hours).
- $V$  = Volume of CMVs using the facility in the analysis period (e.g. day, month or year).
- $t$  = Average border crossing time (in minutes or hours).
- $V_i$  = Volume of CMVs inspected (either by FMCSA or DPS).
- $r_i$  = Average CMV inspection rate (including FMCSA + DPS, as a percentage).
- $t_i$  = Average CMV inspection duration (in minutes or hours).



This formula was used to analyze the five LPOEs where BCIS border crossing time is available to estimate the *average border crossing time* attributable to federal and state CMV safety inspections using the information collected as part of this study for the year 2019. The *average CMV inspection rate* was assumed at 2 percent for FMCSA based on a sample of Texas-Mexico LPOEs, and the rate for DPS was calculated for each location based on detailed statistics provided by the agency. *Average CMV inspection duration* for each LPOE was estimated based on DPS statistics and applied uniformly to both FMCSA and DPS inspections. The results are presented in Table 4 below and include the *average border crossing time attributed to CMV safety inspections* for vehicles traveling in Standard and FAST lanes measured in minutes and as a percentage of the average crossing time.

**Table 4. Estimated Average Border Crossing Time Attributed to Safety Inspections (2019).**

LPOE	<i>t</i> (in min.) Standard	<i>t</i> (in min.) FAST	$r_i^*$	$t_i$ (in min.)	$\Delta t_i$ (in min.)	% of <i>t</i> Standard	% of <i>t</i> FAST
BOTA	90	89	10.6%	25.7	2.7	3.0%	3.1%
Brownsville	52	38	6.0%	32.1	1.9	3.7%	5.1%
Colombia	76	74	6.6%	37.3	2.5	3.2%	3.3%
Pharr	85	82	5.5%	26.6	1.5	1.7%	1.8%
World Trade	87	86	2.0%	33.5	0.7	0.8%	0.8%
Zaragoza	71	70	6.2%	31.7	2.0	2.8%	2.8%

\* Inspection rate includes both DPS and FMCSA inspections.

**In 2019 federal and state CMV safety inspections were only adding between 42 seconds and 2.7 minutes to average CMV border crossing times, or between 0.8 and 5.1 percent.**

The results show that federal and state CMV safety inspections in 2019 were adding between 0.7 and 2.7 minutes to the average CMV border crossing times, depending on the location. Estimated as a percentage of the average CMV border crossing times for vehicles traveling in

Standard or FAST lanes, the results ranged between 0.8 and 3.7 percent for the former and between 0.8 and 5.1 percent for the latter. Since this time is directly proportional to the number of inspections being conducted, reducing the rate of inspections in half would only result in border crossing time savings between 21 seconds and 1.35 minutes (i.e., 50 percent of  $\Delta t_i$ ) and likely result in an increase of CMV out-of-service rates.

## CMV BORDER SAFETY INSPECTIONS AND AGENCY PERSPECTIVES ON CO-LOCATION OF INSPECTIONS

Researchers conducted several virtual meetings and field visits with DPS and FMCSA officials with the goal of developing an understanding each agency's current strategic priorities, policies, and plans regarding border CMV safety inspections and their perspectives on co-location of inspections. This section summarizes the input and perspectives gathered during these meetings and visits.

## Co-located versus Joint CMV Safety Inspections

Although the terms co-located inspection and joint inspection are often used interchangeably in the context of federal and state CMV inspections, they are not necessarily the same. In the broadest sense, co-location of inspections simply means that both federal and state inspections take place within the same compound. However, federal and state inspections may take place in two separate locations within the same compound, or they may be conducted jointly by both agencies and take place in the same facility within a compound. For the purposes of this study, “co-located inspections,” or simply “co-location,” refers to the former arrangement and “joint inspections” to the latter. In a co-located inspection arrangement, each agency conducts its inspections in its own separate (but often adjacent) space within the same facility compound (e.g., the federal compound or a BSIF). In contrast, joint inspections involve personnel from both agencies working in the same space and inspecting the same vehicle at the same time, a more complex and challenging endeavor.

Both agencies, FMCSA and DPS, have experience operating in co-location. For example, until 2017 DPS maintained an inspection station within the federal compound at the Laredo-WTB LPOE, and on as-needed basis it has conducted inspections within the federal compound at the Rio Grande City LPOE. FMCSA works under a co-located inspection arrangement in some locations, such as the Mariposa LPOE in Arizona, where inspections are conducted in co-location with the ADOT.

Depending on the organizational arrangement, joint inspections may require more personnel per vehicle inspections than either co-located inspections or the current separate inspection process practiced at Texas BSIFs. In other words, joint inspections would not necessarily result in increased throughput of CMV safety inspections when compared to co-location assuming the same inspection staffing levels per agency are maintained. This is because joint inspections may require personnel from both agencies to be involved in every CMV inspection.

## Agency Strategic Priorities, Policies, and Plans for CMV Border Safety Inspections

### *Strategic Priorities and Policies*

Inspections help deter non-compliance with CMV safety regulations. Lower vehicle and driver out-of-service rates are a net benefit to highway safety, and FMCSA and DPS complement each other on their efforts. Therefore, it is the out-of-service rates at each LPOE that help determine the number of inspections that the agencies aim to conduct. For example, following the implementation of NAFTA in the 1990s, CMV out-of-service rates at LPOEs throughout the U.S.-Mexico border were very high. In response, federal and state agencies deployed a significant number of inspectors, gradually improving carrier compliance and reducing out-of-service rates to what they are today.

**Inspections, which help deter non-compliance with CMV safety regulations and lower vehicle and driver out-of-service rates, are a net benefit to highway safety.**

Agencies are constantly evaluating out-of-service rates and the minimum effective level of inspections necessary to minimize out-of-service rates at each location. As described in Chapter 3, current out-of-service rates at Texas LPOEs are significantly lower than the average out-of-service rates detected across the rest of the Texas highway system. As a result, DPS considers that current staffing and inspection levels at Texas BSIFs are adequate and has instead shifted to a strategy of augmenting roadway inspections at other locations throughout the state. DPS currently has a five-year plan in place that calls for redirecting personnel from the BSIFs to the border communities and highways leading into the interior of Texas to enhance commercial vehicle safety. This strategy relies on the fact that FMCSA continues to conduct congressionally mandated commercial vehicle screening and inspections at ports of entry. Similarly, based on current out-of-service rates, FMCSA considers that current CMV border safety inspection levels are adequate and has no immediate plans to increase them.

### ***Inspection Infrastructure Policies and Plans***

FMCSA is tasked with carrying out its border inspection mission within the federal LPOE compound at an already authorized or existing stop in proximity to the federal compound. The agency operates inspection facilities within the federal compound at all 13 commercial LPOEs on the Texas-Mexico border. The agency considers that current inspection capacity needs at these LPOEs are adequate for its target inspection levels and currently has no plans for a significant capacity expansion. FMCSA does not control the footprint of its inspection facilities within the LPOE federal compound. This responsibility belongs to GSA, which is the federal agency charged with managing the acquisition, use, and disposal of real property (i.e., real estate and land) and personal property for the federal government (including federal property at the LPOE). FMCSA's short- and long-term space needs are planned in concert with GSA. In terms of satisfying these needs across all U.S.-Mexico LPOEs, GSA will generally first consider space availability within the federal compound.<sup>8</sup> In situations where there is no sufficient space available for FMCSA within the federal compound, GSA may opt to enter into a commercial lease with a third party (e.g. a state or local government, or a private party). For example, GSA currently leases space for FMCSA at state-owned facilities at LPOEs in California and Arizona, and as a result, federal and state inspections are de facto co-located at these LPOEs. Two examples of such commercial leases in Texas include the Weslaco (Progreso) and the Roma LPOE, where GSA leases property for the entire federal compound from their owners, the B & P Bridge Company of Weslaco (private company) and Starr County (local government).

**DPS currently has sufficient capacity to conduct inspections at all LPOEs where there is a BSIF, except for Pharr, where a full-size facility was completed in 2013 but has not been put into operation due to a missing road link to the federal compound adjacent 150 feet away.**

In contrast, as noted in Chapter 4, DPS currently operates BSIFs at eight of the 13 Texas-Mexico LPOEs: Del Rio, Camino Real (Eagle Pass), BOTA, Ysleta, Laredo-Colombia, Free Trade (Los Indios), Veterans (Los Tomates), and Pharr (not currently in operation). The remaining five commercial LPOEs that do not have a DPS

<sup>8</sup> GSA acts as a landlord agency within the federal compound. Each agency that operates within the compound in turn leases the space they occupy from and pay rent to GSA, including CBP, FMCSA, Department of Agriculture, Food and Drug Administration, and the Fish and Wildlife Service.

BSIF are Weslaco (Progreso), Roma, Laredo-WTB, Presidio, and Rio Grande City. DPS considers that capacity at most of the locations where BSIF already exist is adequate to handle inspection needs for the foreseeable future. The only exception is at the Pharr LPOE, where a full-size BSIF that was completed in 2013 has not been put into operation because it is missing a roadway link connecting it to the federal compound. As a result, DPS has been conducting inspections at a small temporary facility of limited capacity next to the federal compound. However, this situation is expected to change in Spring 2023, when construction of the missing road link and access facilities to the federal compound are expected to be completed, enabling the operation of the full size BSIF. This project is being implemented through a partnership that includes TxDOT, the City of Pharr, and GSA.

DPS currently has no plans to build new BSIFs at the five locations where it does not already have one. The reasons for this vary by location. Laredo-WTB stands out because it is the LPOE that carries the largest share of CMV traffic between Texas and Mexico (about 1.8 million CMVs or 41 percent in 2019). However, options for building a BSIF in the immediate surroundings of this LPOE have been limited since the early 2000s. The area is

**For years, DPS operated an inspection facility co-located within the federal compound at the Laredo-WTB LPOE, where a BSIF has not been built due to a lack of space. The arrangement ended in 2017 when a severe thunderstorm severely damaged the trailer that housed the DPS office.**

largely built up, and acquiring a suitable parcel of land to build a BSIF would not only be challenging but costly. Consequently, for several years DPS operated an inspection facility located within the federal compound at this location. This co-location arrangement ended in May 2017 when a severe thunderstorm system hit the Laredo region and severely damaged the trailer that housed the DPS office. Since then, DPS has stopped conducting inspections at the WTB LPOE and has instead strategically deployed random roadside inspection locations along the roadways leading to and from the LPOE to maintain out-of-service rates in check. In the aftermath of the thunderstorm, there were negotiations over a lease between DPS and GSA to allow DPS to return to the federal compound, but the agencies failed to reach agreement over the terms, conditions, and lease payment amount.

The situation at the remaining LPOEs that do not currently have a BSIF is different from the standpoint of CMV traffic volumes. These are the smallest commercial LPOEs in Texas, carrying altogether only about 2.7 percent of the CMV traffic between Texas and Mexico (or 118,518 CMVs in 2019). Since these are comparatively smaller CMV traffic numbers, DPS can more cost-effectively carry out its mission by conducting roadside safety inspections rather than having a permanent inspection.<sup>9</sup> Future CMV traffic growth at these locations may warrant the deployment of a permanent inspection facility.

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<sup>9</sup> DPS had an agreement with GSA, where DPS personnel would conduct inspections on an as-needed basis within the federal compound at the Rio Grande City LPOE. However, this agreement eventually ended as a result of interpersonal conflict between state and federal employees.

## Agency Perspectives on Co-location

**Although federal and state inspections are very similar from a procedural standpoint, there are enough regulatory, procedural, and administrative differences between the two inspections that they must be considered separate, yet complementary processes.**

CMV border safety inspections intrinsically require a significant amount of space, infrastructure, and equipment, including inspection pits and canopies, scales, office space, sufficient parking facilities, etc. The inspections are also a very people-intensive process. The amount of space and the number of inspectors needed are dictated by the type and number of inspections that are to be

conducted to meet agency goals (e.g., maintaining a certain level of CMV out-of-service rates). Although federal and state inspections are very similar from a procedural standpoint, and inspector training for both agencies is essentially the same, there are enough regulatory, procedural, and administrative differences between the two inspections that they must be considered separate, yet complementary processes. Since CMVs inspected by FMCSA are not considered for DPS inspection, in Texas both inspections complement each other to maintain a rate of inspections that minimizes CMV out-of-service rates.

These differences raise key issues that must be considered when assessing the feasibility of co-locating federal and state CMV safety inspections. These considerations range from space and infrastructure constraints to regulatory, administrative, and human and labor relations management. The paragraphs that follow summarize the perspectives gathered from both agencies on these key issues.

### **General Considerations**

Generally, implementing co-located or joint federal and state CMV safety inspections is driven primarily by space constraints. As such, the benefits of co-located or joint inspections vary by location. In locations where either agency may not have sufficient space available to conduct inspections but the other agency has space available within its facility that meets the requirements, co-location or joint inspections may prove advantageous. Examples include FMCSA's current leasing of space from ADOT at the Mariposa LPOE in Nogales, and until recently the arrangement DPS had with GSA to conduct CMV safety inspections at the Laredo-WTB LPOE federal compound.

### **Regulatory Considerations**

Although federal and state safety inspection requirements are very similar, there are some key differences that must be considered when assessing the feasibility of co-located or joint inspections. These differences include issues such as the facility layout and equipment that each agency needs on-site, as well as the implementation of enforcement actions. Weight and size limits are the most significant example. Setting and enforcing weight and size limits is a state responsibility and as such, vary by state. While FMCSA does not have authority to enforce them, DPS requires access to a scale and/or other means to weigh and verify size limits of CMVs entering the state, which adds to the space footprint required by the agency. Another example is



the enforcement of regulations when violations are found. FMCSA inspectors cannot issue citations to drivers for violations, but instead they may issue a Notice of Claim for civil penalties for violations discovered during inspections. If the carrier's record shows repeated violations over time, FMCSA may conduct additional interventions (which may include offsite or onsite investigations) that could result in fines and/or suspension or revocation of the carrier's operating authority.<sup>10</sup> On the other hand, DPS inspectors may issue citations directly to the driver, which may require reporting to court and, if convicted, involve fines and other enforcement actions, including the revocation of driving privileges.

### ***Administrative Considerations***

There are also administrative issues related to co-located or joint inspections that may seem minor but are consequential in ensuring the ability of each agency to accomplish its mission. For the negotiation of long-term leases between GSA and the state government, including modifications to ensure the space meets current and foreseeable agency requirements, leasing can be a long and complex process. Another example is the complexity dealing with accounting issues related to administering federal funds granted to the state enforcement agency, particularly in cases of joint inspection, where both agencies share facilities and office space. Since federal law prohibits FMCSA from directly benefitting from these funds, if the funds were to be used by the state agency to purchase items such as office equipment or furniture, these would have to be kept separate to ensure FMCSA personnel do not benefit from it.

### ***Human and Labor Relations Management Considerations***

Finally, there are human and labor relations management issues that are not insurmountable but must also be considered, particularly when assessing the feasibility of a joint inspection arrangement. CMV safety inspections are a people-intensive process, involving significant physical interaction between enforcement agency personnel and drivers throughout the day. Managing such interactions productively becomes increasingly complex when inspectors from two different agencies are working in the same location but reporting through different management structures and following different enforcement guidelines. The fact that DPS is a law enforcement agency but FMCSA is not, and that FMCSA inspectors are unionized while DPS inspectors are not, adds another layer of complexity to this interaction. In some cases, the differences between the agencies are subtle, such as FMCSA inspectors being required to use reflective safety vests, while state inspectors are not. In other cases, they may be more consequential, such as in the development of federal inspector staffing schedules, where the supervisor's authority is limited by union rules. By comparison, DPS supervisors have considerably more flexibility in this regard. Additionally, FMCSA inspectors have a different pay scale from the DPS's civilian CMV inspectors, which has caused personnel complications in the past.

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<sup>10</sup> U.S. Department of Transportation. Federal Motor Carrier Safety Administration. "I got a warning letter—what do I do?" June 2013. Accessed September 28, 2022.  
[https://csa.fmcsa.dot.gov/Documents/Warning\\_Letter\\_Factsheet\\_GRS\\_K\\_Final\\_508.pdf](https://csa.fmcsa.dot.gov/Documents/Warning_Letter_Factsheet_GRS_K_Final_508.pdf)

## SWOC ANALYSIS

A SWOC analysis is a technique that has long been used by organizations to consider all the positive and negative characteristics of a business, an operation, or a product. Researchers applied SWOC analysis framework to organize the quantitative and qualitative findings presented in this chapter and assess to what extent co-location of federal and state CMV safety inspections at Texas-Mexico LPOEs would be advantageous. The results are shown in Table 5 and described in the paragraphs that follow.

**Table 5. Strengths, Weaknesses, Opportunities, and Challenges of Co-Location.**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>Simple co-location within the federal compound may allow postponing or avoiding new BSIF construction costs at small but growing CMV LPOEs where DPS currently does not have one.</li> </ul>	<ul style="list-style-type: none"> <li>At locations where DPS already operates a BSIF, simple co-location would not help decrease CMV border crossing times and would not necessarily improve inspection throughput.</li> <li>In the form of joint inspections, co-location may require more personnel to attain the same target number of inspections.</li> </ul>
Opportunities	Challenges
<ul style="list-style-type: none"> <li>Simple co-location within the federal compound is a potential solution at Laredo-WTB, the largest LPOE by CMV traffic, and where DPS does not currently operate a BSIF.</li> </ul>	<ul style="list-style-type: none"> <li>Negotiating a lease for space owned by another agency that meets either agency goals can sometimes be a long and complex process.</li> <li>Co-location in the form of joint inspections may involve more complex accounting and labor relations issues that must be managed for the duration of the arrangement.</li> </ul>

The SWOC analysis shows that at Texas-Mexico LPOEs, strengths and opportunities for simple co-location exist at locations where DPS does not currently have a BSIF but where it currently needs or may eventually need to have a permanent or semipermanent inspection station. An example of the former would be a small LPOE where expected growth in CMV traffic volumes may eventually justify having a full-time inspection station; simple co-location within the federal compound may allow DPS to have inspection capacity before embarking on new construction. An example of the latter would be the Laredo-WTB LPOE, the largest in the state by CMV traffic volume—simple co-location at the federal compound may provide an opportunity for DPS to restart CMV safety inspections.

On the other hand, co-location also presents some weaknesses and challenges. The main weakness of co-location in any of its forms is the absence of significant CMV border crossing time benefits. This is because the CMV border safety inspection process represents only a small fraction of the total average CMV border crossing time. Therefore, cutting the rate of inspections to reduce an already small portion of the crossing time is unlikely to produce noticeable effects. Furthermore, assuming that CMV inspection rate targets are unchanged, co-location in the form of joint inspections is unlikely to increase CMV inspection throughput without additional

inspection staff. In terms of challenges, the most relevant for all forms of co-location is the potential length and complexity of negotiating a space lease agreement between DPS and GSA, since the lease agreement would require DPS to pay for the space leased. Finally, accounting and labor relations challenges are more likely to appear in a joint inspection setting. Neither one is insurmountable, but they are important, nonetheless.



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## **CHAPTER 6:**

# **CONCLUSIONS AND RECOMMENDATIONS**

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This chapter summarizes the conclusions derived from the findings of this study, including the analysis of the data and information gathered by researchers with the assistance of DPS and FMCSA, and based on the study objectives. The recommendations that follow are based on these conclusions. The chapter concludes with an overview of the limitations of the study.

## **CONCLUSIONS**

Federal and state CMV safety inspections at Texas LPOEs play a critical role in keeping CMV out-of-service rates low. In the experience of both FMCSA and DPS, maintaining a minimum effective rate of CMV safety inspections helps minimize out-of-service rates and helps keep Texas highways safe. Reducing the rate of inspections is likely to result in increased out-of-service rates. In fact, based on the location of DPS inspections, out-of-service rates found at BSIFs have consistently been lower than out-of-service rates found at roadway inspections statewide, which suggests that current border safety inspection rates are effective.

Only a small fraction of the CMVs crossing the border are pulled over by either FMCSA or DPS for a comprehensive safety inspection (between 2–7 percent of total crossings).

FMCSA and DPS safety inspections do not duplicate each other. In fact, they complement each other by expanding the percent of CMVs being screened and attaining the inspection rates that have resulted in the out-of-service rates that currently prevail across Texas-Mexico LPOEs. More specifically, CMVs that have been selected for a federal comprehensive inspection after being screened by FMCSA are not generally selected for inspection by DPS.

Federal and state CMV border safety inspections currently have a minimal impact on border crossing times, and co-location is not likely to result in average CMV border crossing time savings. An analysis of DPS and FMCSA data and BCIS border crossing times for 2019 showed that the combined federal and state safety inspections only added between 0.7 and 2.7 minutes to average CMV border crossing times across Texas LPOEs. Furthermore, the fact that inspections take place at separate but adjacent facilities is not the main driver of this impact, but rather the number of CMVs being inspected, which is already a small fraction of total CMV traffic. In other words, simply co-locating the federal and state safety inspections is not likely to result in border crossing time savings. Since technology used for safety inspections remains limited at the border, there may be opportunities to reduce safety inspection times, but a comprehensive assessment has not been performed by the agencies.

A SWOC analysis conducted using inspection data and information collected through discussions with DPS and FMCSA officials suggests that there are strengths and opportunities for co-location at LPOEs where DPS does not currently have a BSIF and where it currently needs or may eventually need to have a permanent or semipermanent presence. On the other hand, the analysis also showed the main weakness of co-location is the absence of significant CMV border crossing time savings. In terms of challenges, the potential length and complexity

of negotiating a lease for space between DPS and GSA represents one that is important but not insurmountable.

## **RECOMMENDATIONS**

There are four recommendations that emerge from the SWOC analysis results:

- Consider co-location within the federal compound at the Laredo-WTB LPOE. More specifically, consider re-starting lease negotiations between DPS and GSA to re-establish a DPS CMV safety inspection at this location.
- Consider co-location within the federal compound as a future potential alternative at smaller LPOEs where CMV traffic volumes do not currently warrant a permanent DPS presence but where growth is expected and implement accordingly.
- Consider conducting a study to determine minimum effective rates of CMV border safety inspection and assist agencies in optimizing target inspection rates at LPOEs to minimize CMV out-of-service rates. The study should also include an analysis of the extent to which CMVs involved in cross-border drayage contribute to overall statewide CMV crashes. This study could assist agencies in fine tuning inspection rates and may have a minor but positive impact on reducing the safety inspection component of CMV crossing times.
- Consider conducting research on non-invasive technologies and/or practices that could help safety inspectors reduce the time it takes to conduct comprehensive CMV inspections.

## **STUDY LIMITATIONS**

There are several limitations to the findings and conclusions of this study, including the following:

First, field visits to observe border safety inspections at Texas commercial LPOEs were limited by study budget constraints. Each location has a different layout, and space available for inspections also varies by location. Field visits to Texas commercial LPOEs were limited to the Bridge of the Americas and the Ysleta LPOEs in the El Paso region. A visit to all 13 LPOEs would have allowed researchers to understand specific constraints at each location.

Second, detailed statistics for FMCSA inspections were limited. More specifically, the number of inspections were not available across all Texas-Mexico LPOEs, and statistics for the average duration of inspections and CMV out-of-service rates were not available. More detailed statistics by location would have enhanced the analysis of crossing times by avoiding generalizing average FMCSA inspection rates and times across all LPOEs, since they most likely vary by location.

Third, no field visits were conducted at LPOEs in states where co-located or joint federal and state CMV safety inspections currently take place (i.e. Arizona and California), and researchers were not able to obtain and analyze inspection and out-of-service statistics for those locations.

An analysis of inspection levels and out-of-service rates in those locations would have allowed researchers to conduct a comparative analysis of the effectiveness of the joint inspection versus the separate inspection approach in minimizing out-of-service rates.

Fourth, CMV border safety inspection issues and practices at the U.S.-Canada border were not studied for comparative purposes. Documenting these issues and practices in future research could help identify lessons learned that could be applied at the U.S.-Mexico border.

Fifth, while lower out-of-service rates are known to be beneficial to highway safety, this study did not examine crash statistics to identify to what extent CMVs involved in cross-border drayage contribute to overall crashes, injuries, and fatalities.



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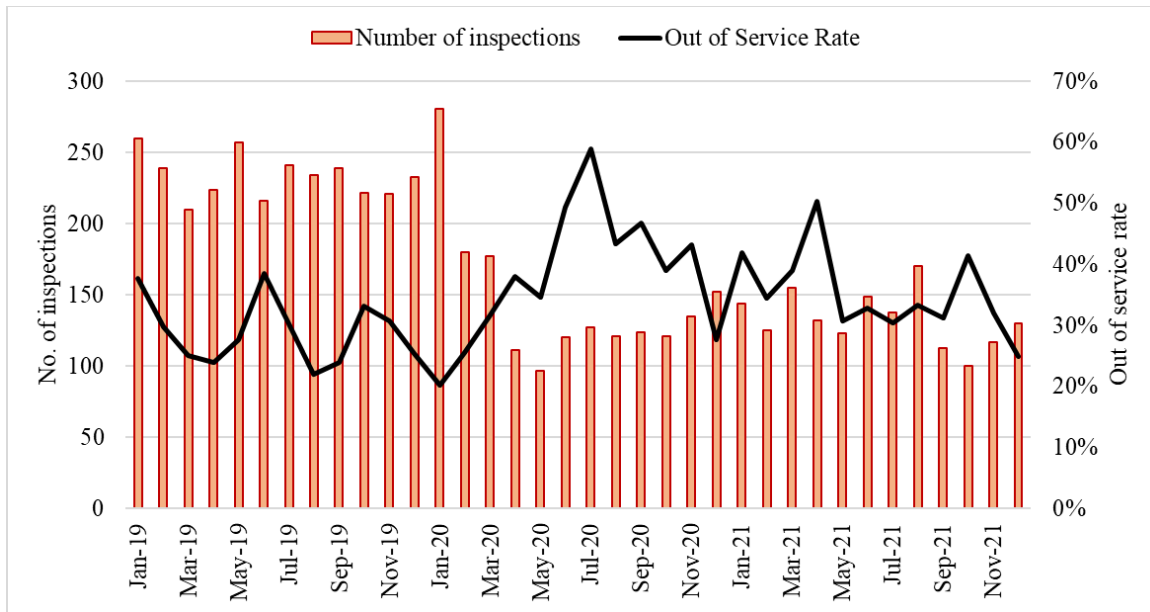
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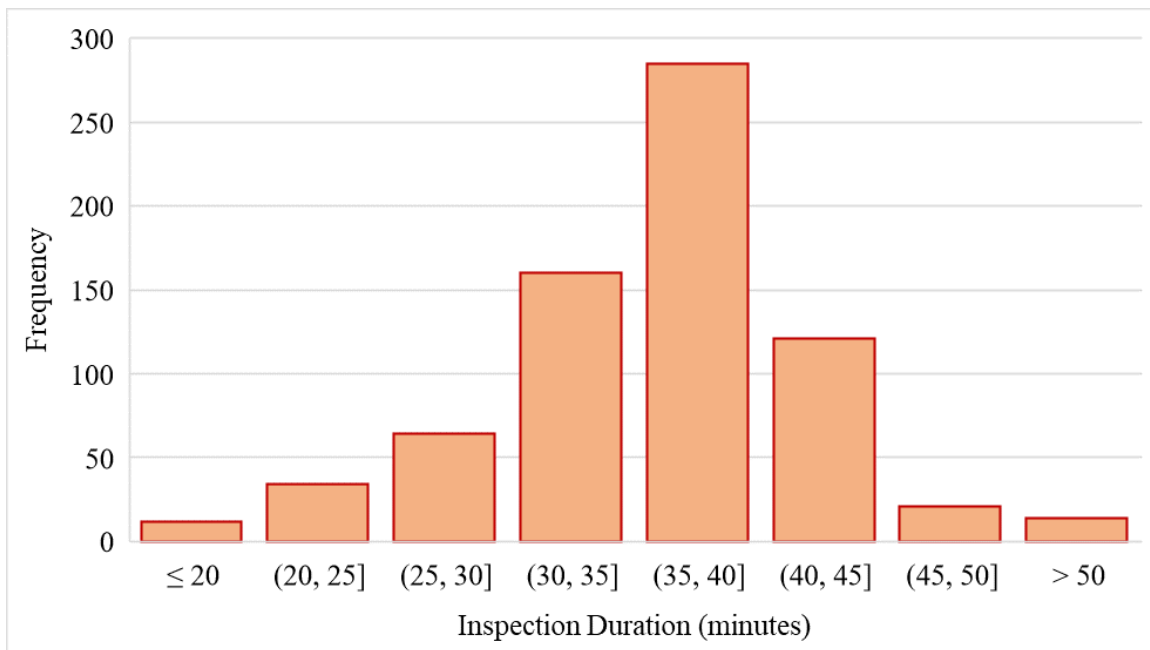
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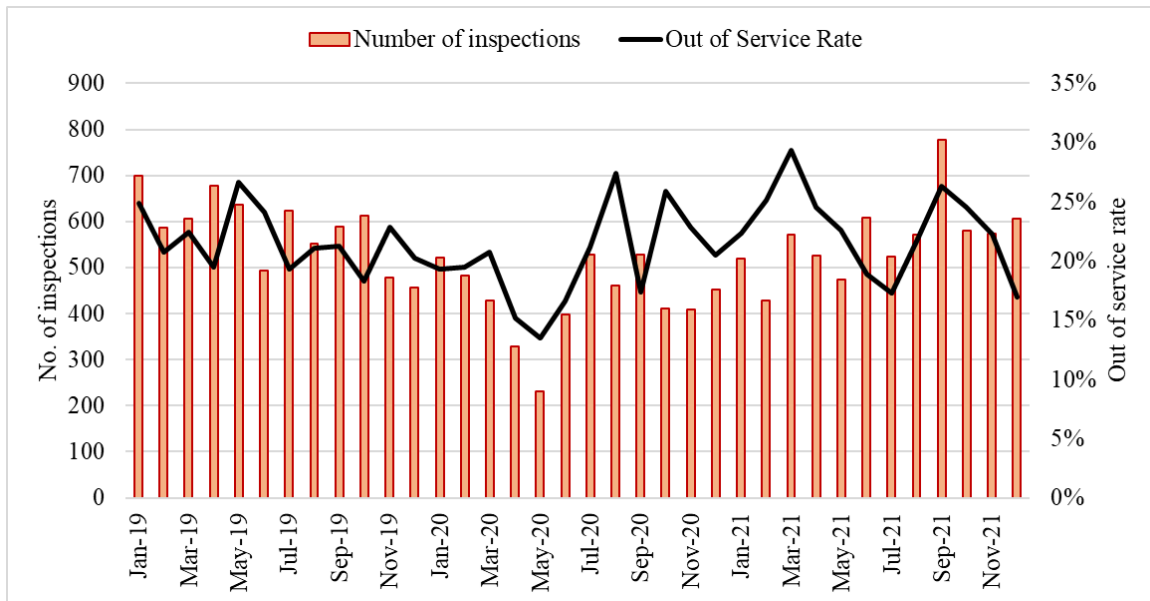
## APPENDIX A. TEXAS DPS BORDER CMV INSPECTION STATISTICS



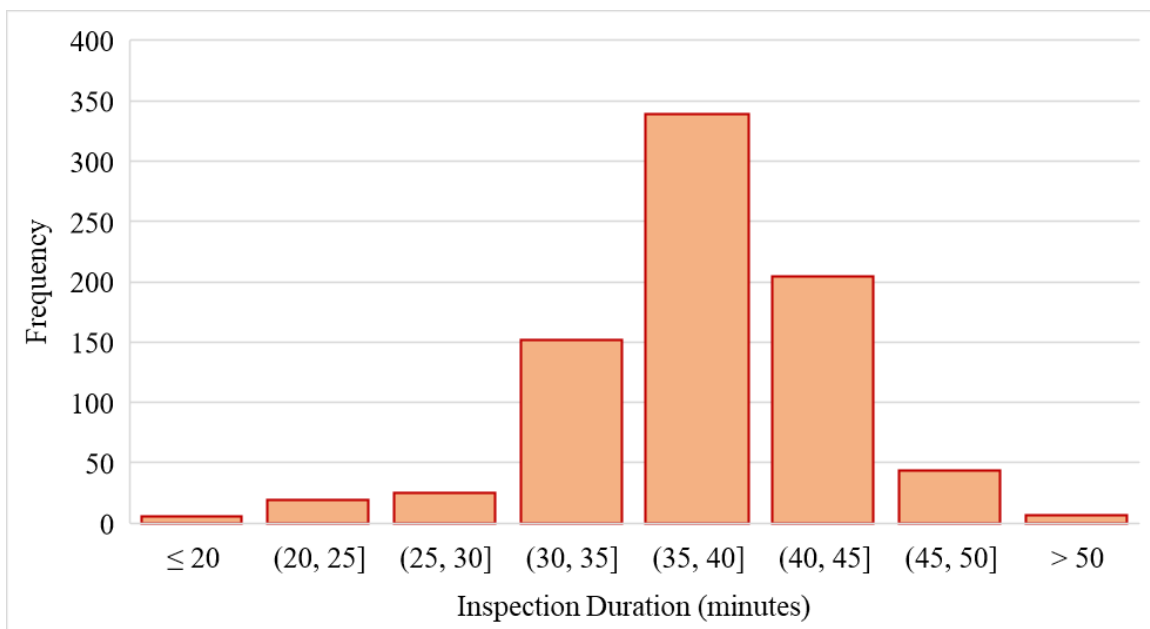
**Figure 14. DPS Inspections at Del Rio POE.**



**Figure 15. DPS Average Inspection Durations at Del Rio POE.**

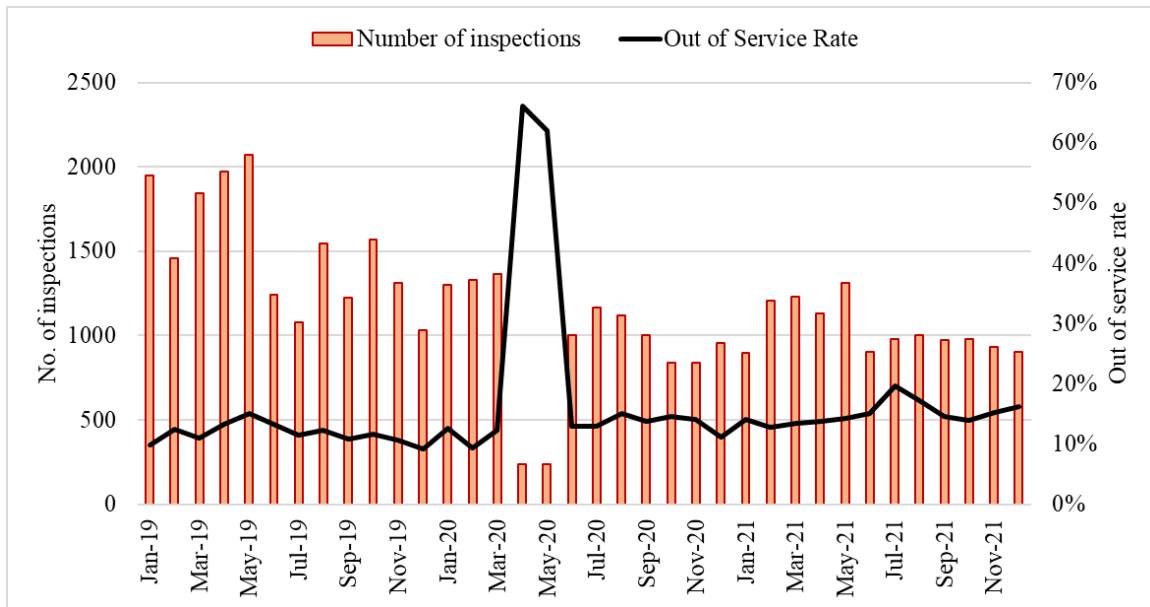


**Figure 16. DPS Inspections at Eagle Pass POE.**

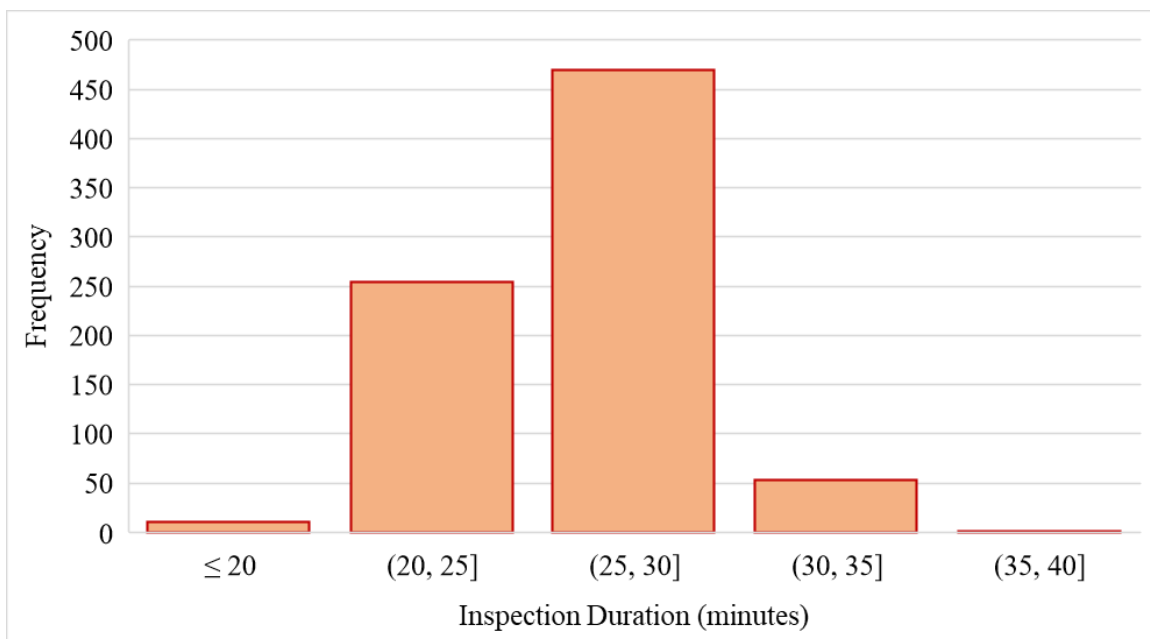


**Figure 17. DPS Average Inspection Durations at Eagle Pass POE.**

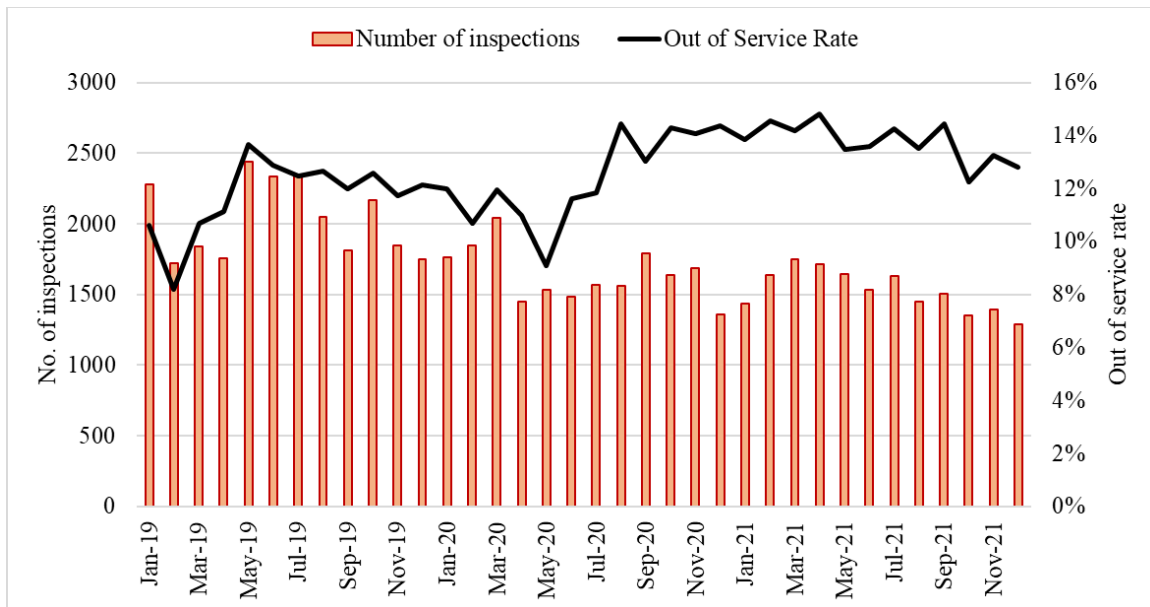




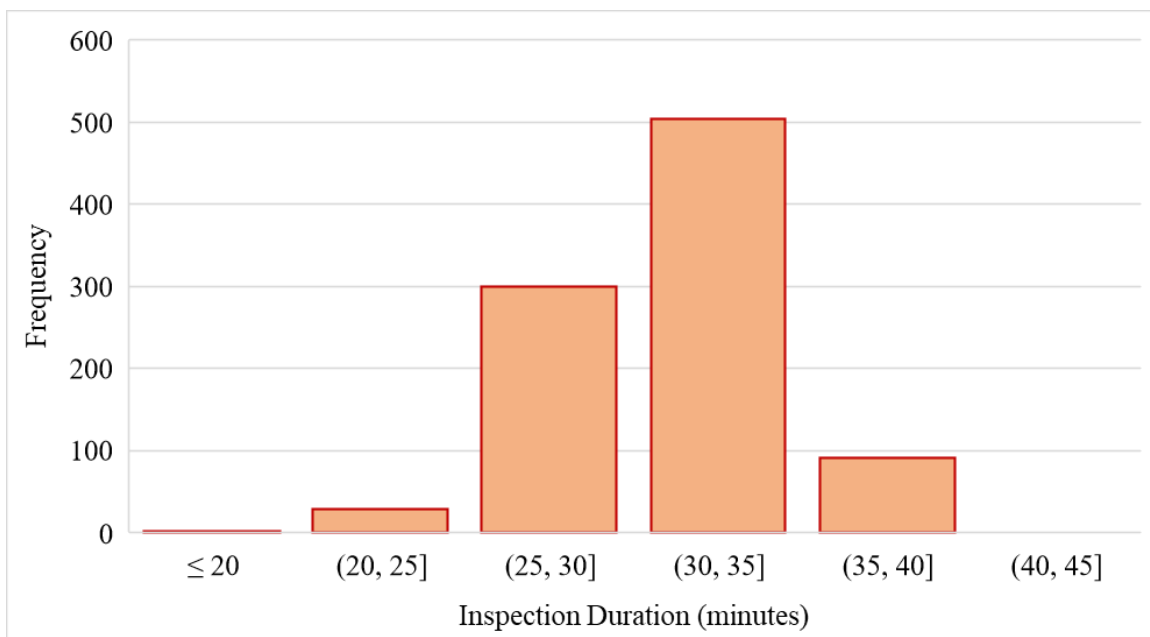
**Figure 18. DPS Inspections at BOTA POE.**



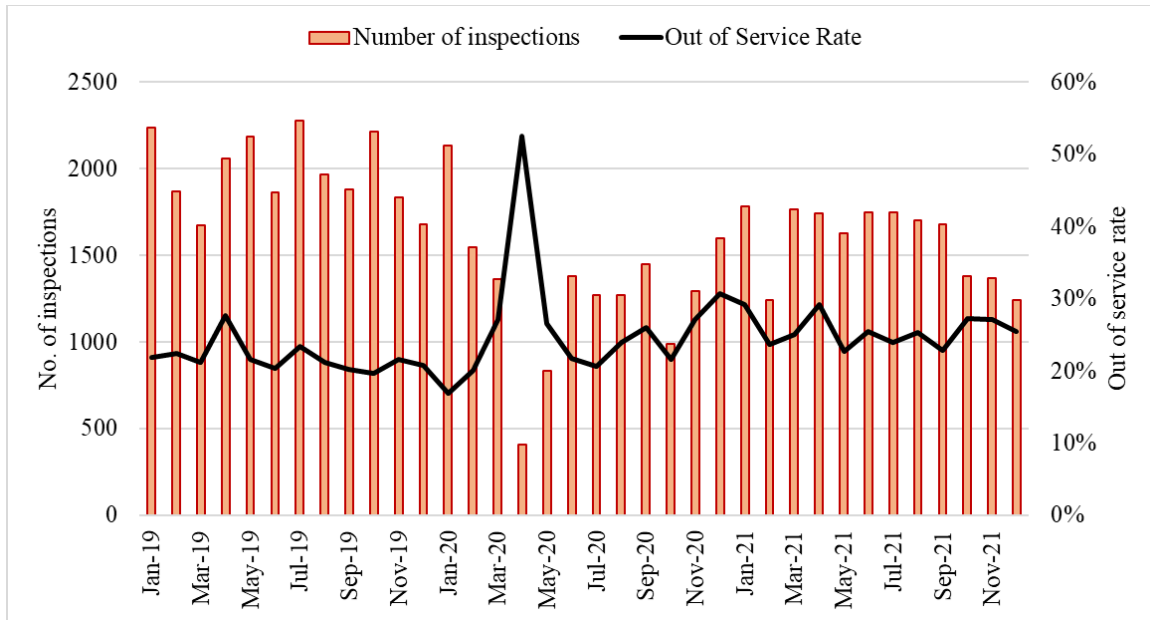
**Figure 19. DPS Average Inspection Durations at BOTA POE.**



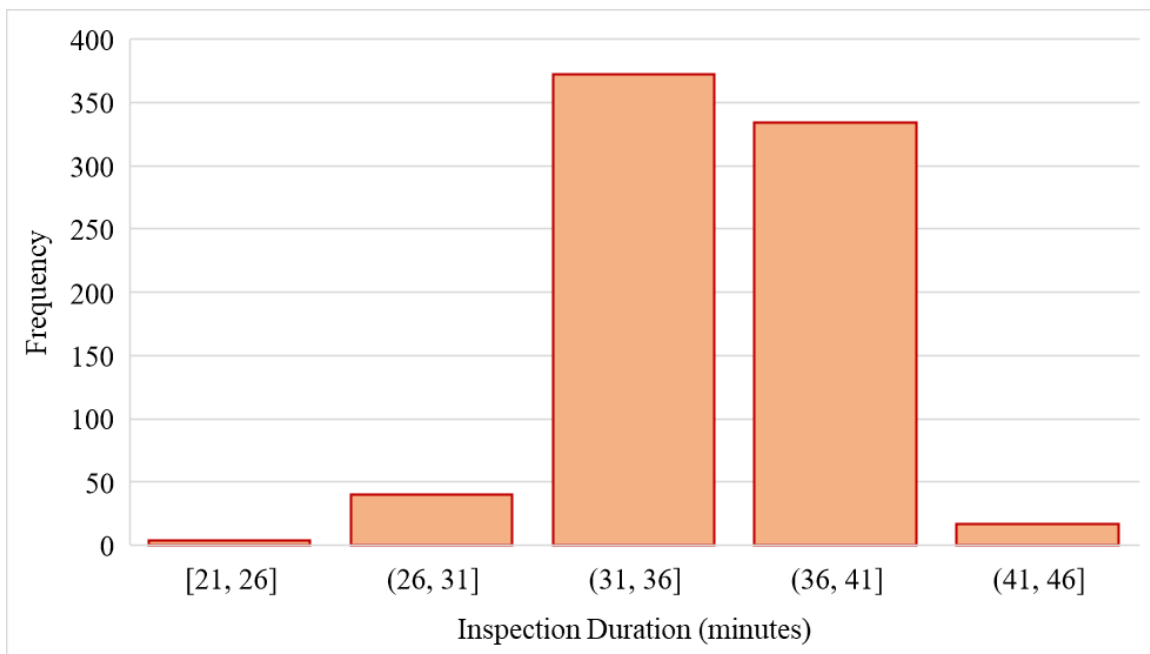
**Figure 20. DPS Inspections at Ysleta POE.**



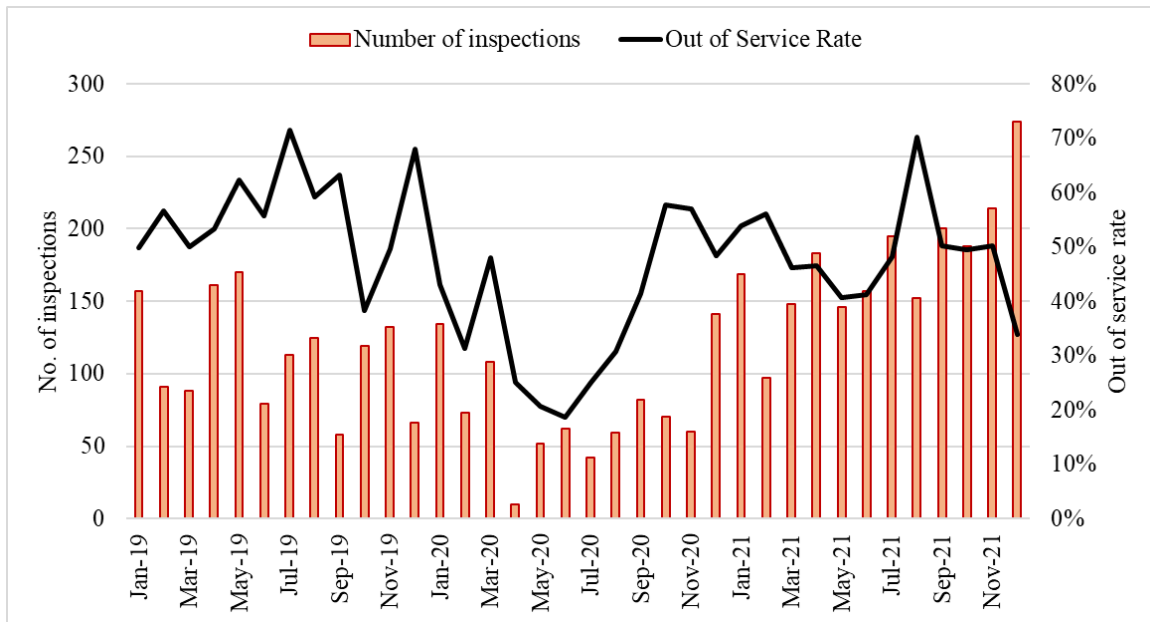
**Figure 21. DPS Average Inspection Durations at Ysleta POE.**



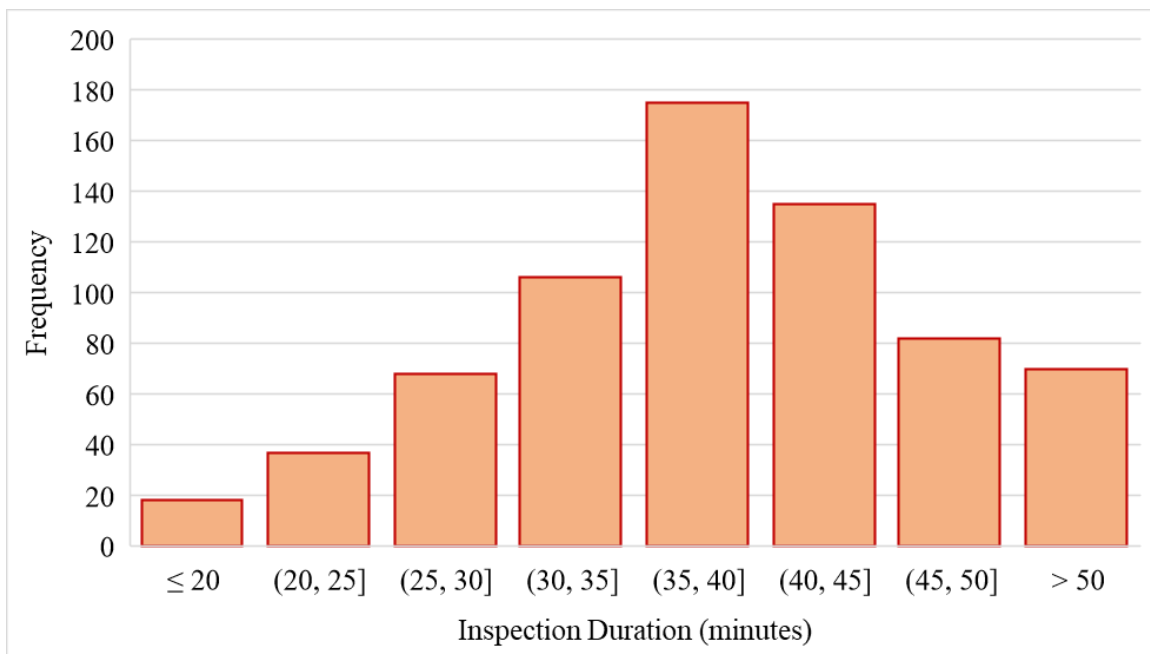
**Figure 22. DPS Inspections at Colombia POE.**



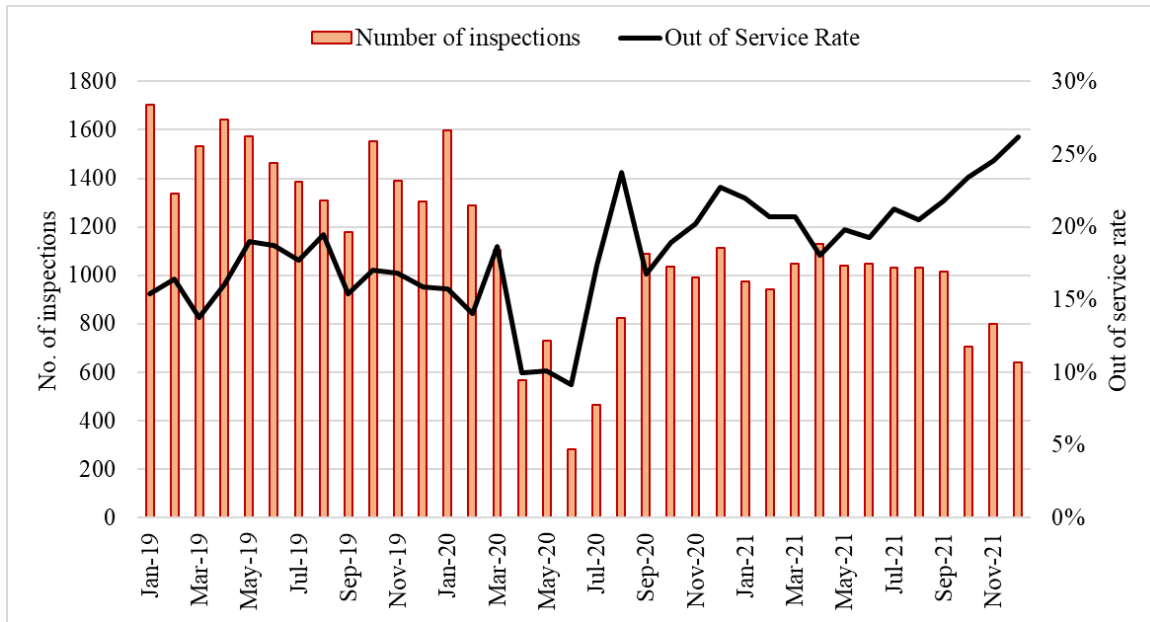
**Figure 23. DPS Average Inspection Durations at Colombia POE.**



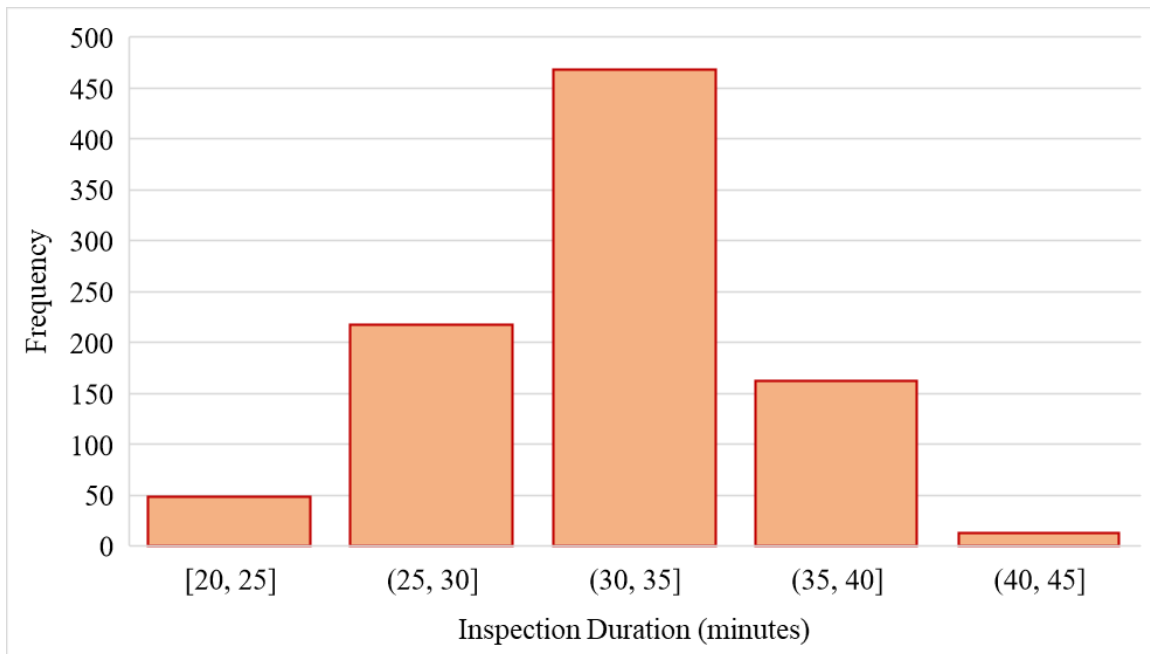
**Figure 24. DPS Inspections at Los Indios POE.**



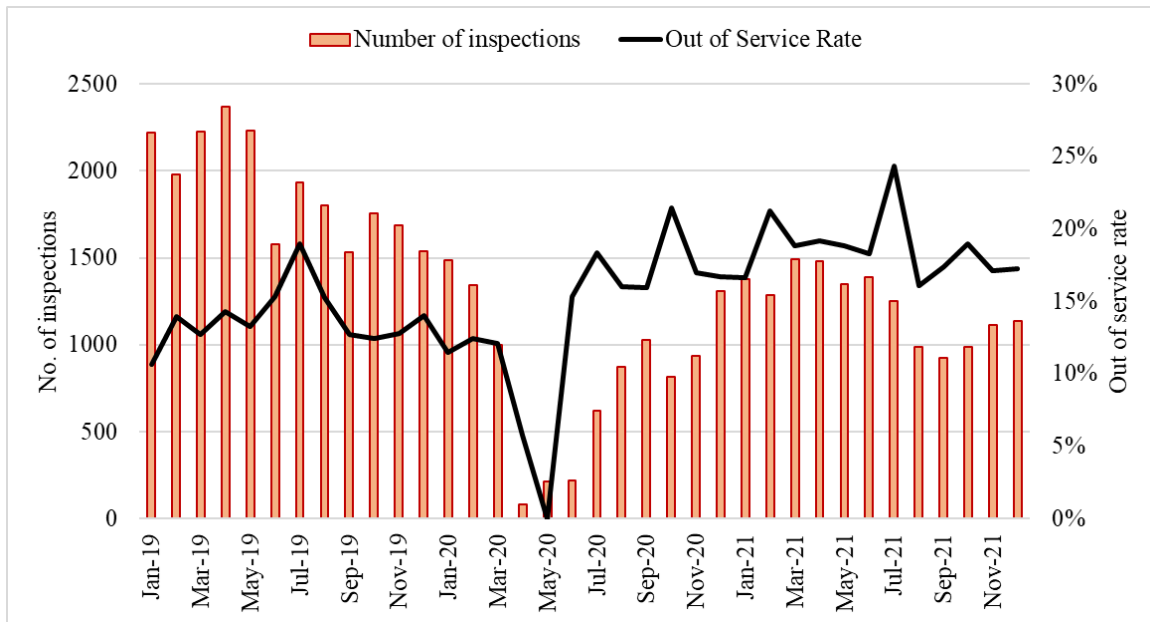
**Figure 25. DPS Average Inspection Durations at Los Indios POE.**



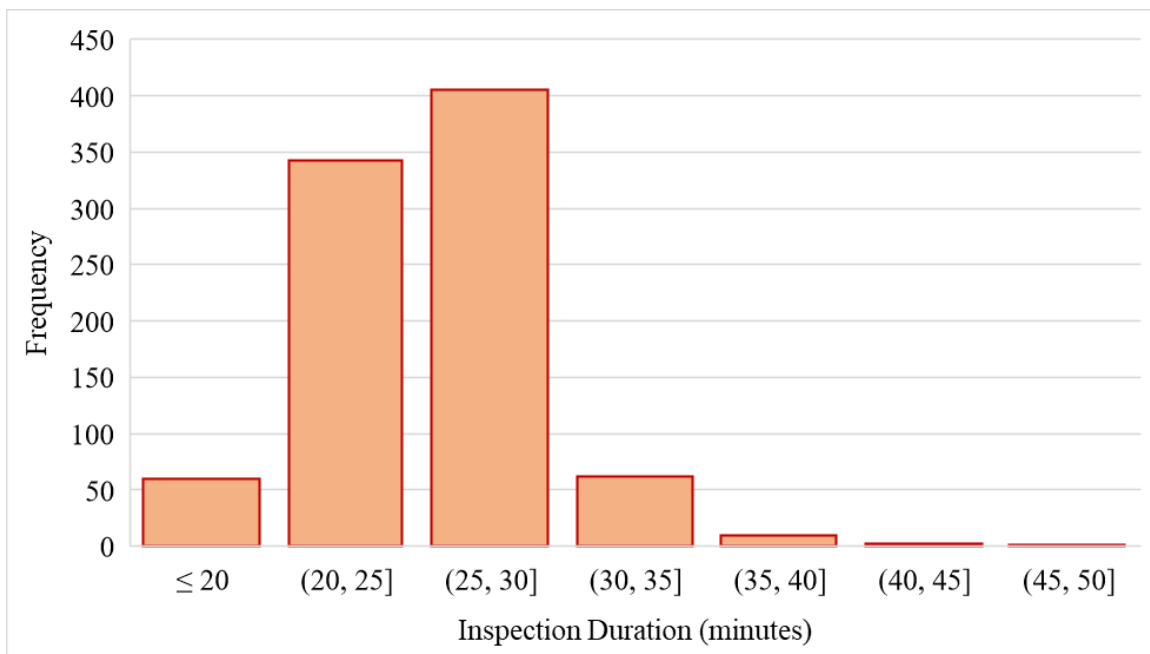
**Figure 26. DPS Inspections at Los Tomates POE.**



**Figure 27. DPS Average Inspection Durations at Los Tomates POE.**



**Figure 28. DPS Inspections at Pharr POE.**



**Figure 29. DPS Average Inspection Durations at Pharr POE.**

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## APPENDIX B. TEXAS DPS COMMENTS ON STUDY REPORT

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Texas DPS provided several comments in a written response to the draft study report, most of which were incorporated into the text of this final study report. However, since the comments were provided in a narrative form and not in-line with the text, researchers have reproduced them verbatim in the paragraphs below to ensure their incorporation into the report.

*In discussions with the working group for this study, DPS clarified that collocating with the Department of Transportation personnel and facilities will not be of benefit. It would not decrease cross-border transportation times significantly and would not increase safety on Texas highways. As noted in the study, commercial vehicles are rarely “double-inspected” and when they are it is due to a visual out-of-service violation or a state law violation that DOT does not enforce (e.g. size and weight limitations, registration, etc.). There is a citation that a commercial vehicle receives five inspections but that is a mischaracterization. That assumes the five are one at CBP and then two each for USDOT and DPS.*

*The main cross border wait time for a commercial vehicle is being checked and inspected by US Customs and Border Protection. The BSIFs were specifically designed by TXDOT with traffic management plans in order to make safe and efficient crossings for commercial vehicles.*

*DPS agrees that lower vehicle and driver out-of-service rates are a net benefit to highway safety, and that DOT and DPS complement each other on their efforts. It should be noted that the GSA does not allow DOT to park OOS vehicles on GSA regulated property, so the FMCSA personnel are more limited than DPS in dealing with OOS drivers and vehicles.*

*The DPS strategy to redirect personnel from the border facilities to the border communities and highways leading into the interior of Texas is to enhance commercial vehicle safety. This idea relies on USDOT conducting congressionally mandated commercial vehicle screening and inspections at ports of entry. DPS has been redirecting efforts to the interior corridors from the border so in places like the World Trade Bridge there is only USDOT conducting inspections.*

*Collocating with USDOT has additional complications in that the USDOT inspectors are unionized, have a different inspection and enforcement process, and a different pay scale from the Department of Public Safety’s civilian CMV inspectors. These differences have caused complications in the past and are reflected in ports of entry along the border into New Mexico.*

*As an option and in adherence with the agreement between the USDOT and DPS, USDOT could redirect funding for cross border inspections to the Department of Public Safety.<sup>11</sup> This would eliminate two inspection screenings and the perception that CMVs are being inspected twice and the perceived wait time. With leadership consent, the Department could be the one stop inspection location for cross-border commercial traffic.*

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<sup>11</sup> In response to this comment from Texas DPS, FMCSA officials indicated that FMCSA is statutorily responsible for performing CMV inspections at United States – Mexico LPOEs, and does not currently have the authority to appropriate, expend or redirect its funding to Texas DPS for cross-border inspections.