Title: **Real Time Truck Regulatory Data Exchange Between Governmental Jurisdictions**

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Abstract

The governmental agencies assigned responsibility for truck size and weight (TSW) in the United States vary from state to state. Many states assign the capital responsibilities to their department of transportation while operations are controlled by the state patrol/police.

A recent study in 2020 for the State of Nevada included a survey of the five states bordering Nevada, i.e., Arizona, California, Idaho, Oregon, and Utah. The survey was to determine the data needs of the agencies and how those were being fulfilled, plus the willingness to share enforcement data. Nevada needs truck information from the previous states of travel to help with enforcement. Both Nevada and the state agencies in the other 5 states mostly agreed that all the data collected should be shared. Building on the findings of this study a research statement was presented to the Transportation Research Board (TRB) of the US Academy of Sciences. The Transportation Research Board (TRB) was intrigued by the proposal and provided funding to conduct research and develop a concept of operations for real time data sharing between states.

Keywords: Weigh-in-Motion, Commercial Vehicle, Enforcement, Truck weight.

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1. Introduction

The governmental agencies assigned responsibility for truck size and weight (TSW) and safety inspections in the United States vary from state to state. Many states assign the main responsibilities to their Departments of Transportation while operations are controlled by the state patrol/police, Department of Motor Vehicles (DMVs) and Departments of Revenue.

The DMVs have responsibility for driver licensing, motor vehicle titling and registration and permitting. They also have responsibility for the interstate carrier registration under the International Registration Plan (IRP), which allows commercial vehicles that travel across multiple states or Canadian provinces to register under a single license plate and pay registration fees based on the percentage of miles driven in each jurisdiction. This is an interstate compact agreement which will be discussed in more detail later in this report. State DMVs also regulate truck driver training schools which train truck drivers for getting commercial driver licenses (CDLs). These DMVs also participate in the Driver License Compact (DLC), an agreement between states that allows them to share information about driver's licenses and traffic violations. State DMVs and state departments of revenue have the responsibility for operating the International Fuel Tax Agreement, also an interstate compact which the lower 48 states, and all Canadian provinces participate in.

The states have a close relationship with the federal government in carrying out their responsibilities. The Federal Highway Administration (FHWA) has responsibility for TSW regulations on the interstate system. They establish the regulations for size and weight and require all state enforcement agencies to abide by these regulations. Table 1. illustrates enforcement and operational responsibilities.

Table 1. Trucking Enforcement Agencies in US

	CDLs	IRP	Permits	IFTA	CMV Inspections	TSW Interstate	CMV Regulations
State DMVs	X	X	X				
State Commercial MV Enforcement					X	X	
State DOTs			X		X	X	X
State Revenue				X			
FHWA						X	
FMCSA					X		X

The Federal Motor Carrier Safety Administration (FMCSA) has responsibility for regulating motor carrier operations on and off the interstate system and issues operating authority to carriers. FHWA has no personnel on the ground at inspection stations. FMCSA has some federal inspectors on the ground but mainly has the states conducting the enforcement actions.

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States issue driver licenses, vehicle titles, registrations and permits as part of the Bill of Rights of the US Constitution. This right is accorded by the 10th AMENDMENT to the US Constitution. That passage says, "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." The federal government of the United States provides substantial funding for building highways and bridges, about 90% of the costs of the interstate highway system. But the states have title to all the highways and bridges. Therefore, all maintenance costs accrue to the states with their own highway system as well as with the interstate system.[1]

Although the states have agreements with each other for sharing information on driver licensing, titling, registration and fuel tax, there is no agreement on sharing information between states on Safety and Size and Weight inspection data. Currently, the Safer System which is operated by Federal Motor Carrier Safety Administration captures inspection data and makes it available for states to access as seen in Figure 1. However trucks operating at highway speeds may arrive at the next state before the SAFER data is available, or the inspecting state may not have the time to enter data into SAFER because of workload.

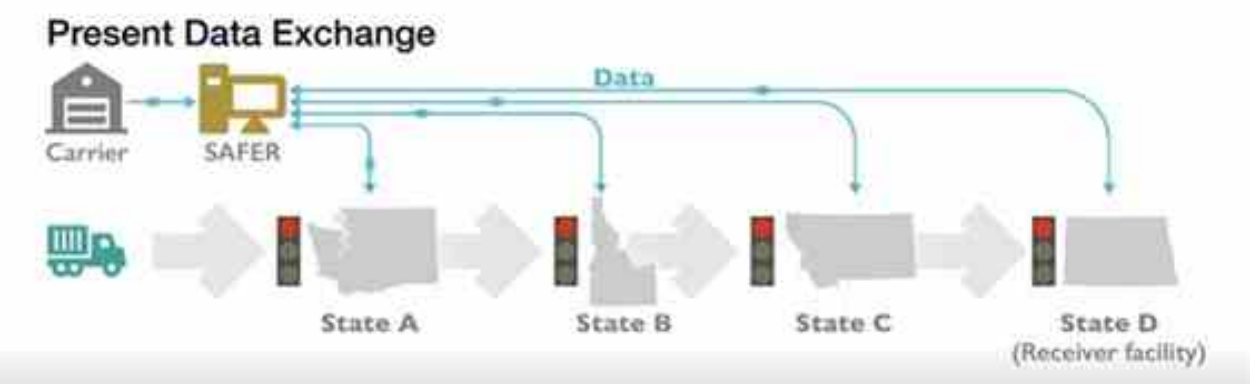

Figure 1. Existing Data Exchange System

Some states do share truck regulatory data on their own with neighboring states. In 2021 the states of Florida and Georgia signed an Inspection Station Data Share System agreement to electronically share data on a real time basis for the purposes of CMV/driver safety and regulatory compliance on a real time basis.[2] Around the same time the need for state data sharing was found as part of a study for Nevada (map to the left). Trucks moving across Nevada on Interstate 15 and interstate 80 are heading either to the ports of Oakland on I-15 or the ports of Los Angeles and San Diego on I-80. The same is true in reverse with trucks going east to Kansas City or Chicago for either delivery or transfer to rail. On I-15, Arizona and Utah now share data on a real time basis. Nevada sees an opportunity where they could also share data with those 2 states. Nevada also shares data with California but finds they have time to use the SAFER data with trucks coming from the Port of Oakland but not so much from the ports of Los Angeles or San Diego. None of this is real time

[1] 10th Amendment of US Constitution, https://constitution.congress.gov/constitution/amendment-10/

[2] AASHTO Innovative Initiative, Freight Operations eXchange (FOX), June 2021, https://aii.transportation.org/Pages/Freight-Operations-eXchange.aspx

data sharing except with Arizona and Utah.[3] Building on the findings of the Nevada study a research statement was presented to the Transportation Research Board (TRB) of the US Academy of Sciences. The TRB was intrigued by the proposal and provided funding to conduct research and develop a concept of operations for real time data sharing between states. That study is now in place, expecting completion in 2025-2026. A Concept of Operation (Conops) has been developed but not yet released. Some elements of the research project are discussed in this paper.

According to a company called CapTech, doing work on interstate agreements, the emphasis on state data sharing is increasing. They said, "the National Association of State Chief Information Officers (CIO) show the growing recognition of the value of data and analytics and of consolidating data and other resources across agencies. State CIOs are not alone. State lawmakers also are embracing data integration. In 41 states and Washington, D.C., 318 bills on data sharing have been introduced since 2015. The federal government is aligned as well. In 2013 alone, $42 million in federal grants were issued in support of state-level data sharing initiatives."[4]

1.1 Interstate Compacts

Interstate compacts are legislation and contracts between the states.[5]According to the National Center for Interstate Compacts an interstate compact is a legally binding agreement between two or more states.[6] Similar to a contract, a compact establishes a formal, legal relationship among states to address common problems or promote a common agenda. State entrance into a compact requires passage from the state's legislature and the governor signing model legislation containing compact language. The authorizing language in each state's compact legislation must be the same for the compact to be enforceable. There are over 260 active compacts in the U.S., and, on average, states are members of about 25.[7]

Because compacts incorporate many stakeholders in the development process, they need state legislative approval and require the establishment of an interstate commission or administrative mechanism. The entire process may take several years for the provisions of the compact to take effect. However, once compacts become operational, they remain durable and adaptable tools for the benefit of states.

The reason that interstate compacts are being discussed in this paper is that complex agreements between states require legislation and if each legislature creates its own legislation without a uniform model the enforcement can still lack interoperability, which is not an advancement over current practices. The best uniform model that is available to the states is an interstate compact. All state agencies dealing with motor vehicle interstate matters like driver licensing, titling, and registration use interstate compacts. Why can't the sharing of truck regulatory data between states also be done with an interstate compact? In a case like the

[3] TRUCK SIZE AND WEIGHT ENFORCEMENT, An overview of fixed facilities requirements, BGM Consulting LLC, February 21, 2019, authors, Mike Onder and Barry Mason, BGM Consulting LLC.
[4] Data Sharing Across State Agencies-Improving Constituent Services, Enhancing Policymaking & Reducing Costs, author, Gabriella Lively, October 24, 2016
[5] See Michae L. Buenger et a., The Evolving Law and Use of Interstate Compacts 35 (Am. Bar Ass'n, 2d ed. 2016).
[6] National Center for Interstate Compacts, https://compacts.csg.org/faq/
[7] Developments in Interstate Compact Law and Practice 2023, Jeffrey B. Litwak & Elise Koepke

International Registration Plan (IRP) the plan has been adopted by all states in their legislation, so that when a change in the plan occurs the change is automatically adopted by state statute.

1.2 International Registration Plan (IRP) as an Example of Data Sharing Compact

The International Registration Plan (Plan) is a registration reciprocity agreement among the 48 contiguous US states, the District of Columbia and ten (10) Canadian provinces. Commercial motor vehicles with a combined gross vehicle weight of more than 26,000 pounds (11,794 kilograms), and traveling in two or more jurisdictions, are likely registered under IRP. Vehicles are registered in their base jurisdiction. Fees are based on the percentage of distance traveled in each jurisdiction according to each jurisdiction's fees. Vehicles are issued an apportioned license plate and cab card which allows the vehicle to travel through all IRP member jurisdictions.[8] The map in Figure 2., includes all 48 contiguous United States, the District of Columbia, and ten Canadian provinces: Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, Quebec, and Saskatchewan.

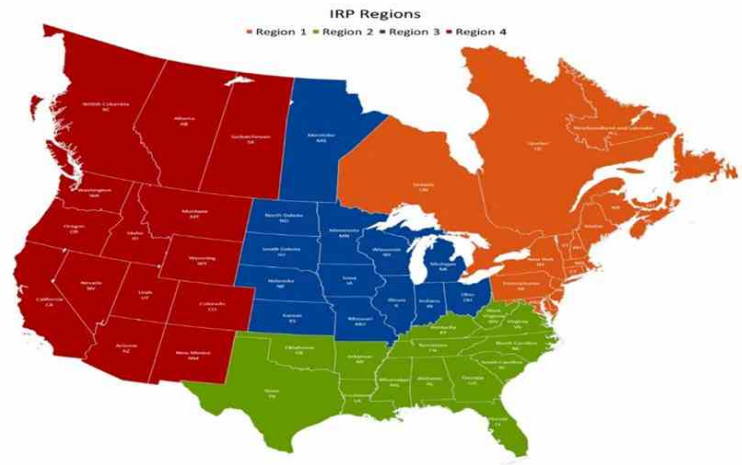

Figure 2. IRP Map of States and Provinces

1.3 Enforcement Technology

Enforcement technology for truck regulations includes electronic logging devices (ELDs), infrared braking detection systems, and virtual weigh stations. These technologies help ensure that commercial motor vehicles (CMVs) comply with regulations and safety standards. Today's tools offer real-time insights, automation and proactive solutions that don't just help fleets follow the rules. These tools help prevent accidents, optimize efficiency and improve overall safety. Technology is available that includes at a minimum WIM sensor that may be supplemented with other sensors for vehicle dimensions, brake operations, plus camera and license plate reader technology to link data to specific trucks and carriers. The collected data is transmitted over the internet to enforcement officers in squad cars and weigh/inspection stations.

Enforcement technology is important to consider for selecting non-compliant carriers for enforcement action from the stream of trucks traveling from their origin to their market destination. The traditional method of having each truck pull over to an inspection station and

[8] https://www.irponline.org/

select non-compliant carriers from that group is over. The inspection stations are finite in numbers, and the inspection personnel have not kept up with freight increases. The ratio of personnel to trucks is decreasing at the inspection stations.

Currently, roughly 3 million roadside inspections are conducted annually in the US. The number of interstate motor carriers has risen by one-third in the last four years, while the number of inspections on interstate motor carriers has declined over that same period.[9] The US Department of Transportation's Bureau of Transportation Statistics (BTS) says trucks are by far the single most-used mode to move freight, moving 64 percent of tonnage in 2015 and 69 percent of the value. As shown in Table 2. Below, tonnage for trucking is forecast to grow 44 percent by 2045, and value is forecast to grow 84 percent, driven by the world economy and consumption within the United States.[10]

Table 2. Weight of Freight by Mode (million tons)

Mode	2015	2045	Change
Truck	11,513	16,529	+ 44%

The problem is that state agencies, who are expected to handle increases in trucking activity without corresponding increases in staff, need other methods for keeping pace. Technology is available to assist with keeping pace but other avenues like sharing data between states to allow compliant carriers to move goods to market without unnecessary delays can have an enormous impact on improving freight mobility and focus enforcement on non-compliant carriers.

1.4 Virtual Weigh Station/Enforcement Facility-Expanded

A virtual weigh station (VWS) is an enforcement facility that does not require continuous staffing and is monitored from another location. The virtual weigh station concept is very flexible. While there is a minimum set of functionality/technology that must be deployed in association with a VWS, states can customize their VWS deployments to meet their specific functional needs (e.g., focus exclusively on truck size and weight issues, expand focus to include safety and credentialing regulations), operational environment (e.g., typical weather conditions, physical space, terrain), and communication infrastructure (e.g., presence of communication infrastructure at site, presence of power at site).[11]

In Figure 3., below, the virtual weigh station operational scenario includes a sketch of digital data being transmitted from the truck to the roadside and providing a clearance mechanism that would allow compliant trucks to continue their trip without interruption within their State. Non-compliant truck data would be routed to patrolling law enforcement to take further action with the non-compliant carrier. The data would also be transmitted to the motor carrier's home office and also to the state data center.

[9] Level VIII Electronic Inspection Concept, CVSA 2025

[10] BTS DOT Releases 30-Year Freight Projections

[11] https://ops.fhwa.dot.gov/publications/fhwahop09051/sec04.htm

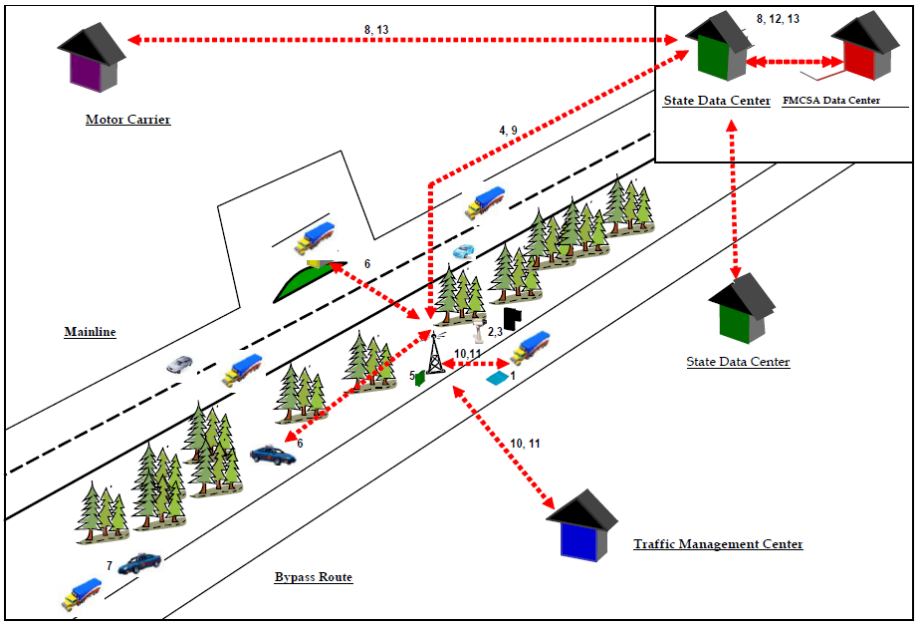

Figure 3. Virtual Weigh Station Operational Scenario

All of the mechanisms are in place with the VWS to add another step and communicate this same information to subsequent states on the carrier's trip. The sketch above adds another state data center to show what may need to be added into the communication architecture. The scenario that follows includes the various steps of data capture and the various users.

1.4.1 Expanded VWS Operational Scenario

As illustrated in Figure 3, the following 14 steps summarize the potential operations of a VWS, now and in the future:

1. As a commercial vehicle approaches the virtual weigh station, it is weighed on the WIM scales and measured by dimensional sensors. The WIM scales could be on a sorter ramp or on the mainline.
2. AVI system automatically identifies the specific vehicle.
3. License plate/USDOT number reader and associated optical character recognition (OCR) software identify the motor carrier that is responsible for operating the commercial vehicle.
4. Screening system uses vehicle identifier and motor carrier identifier to query back-office safety, credentials, and weight performance data.
5. Screening system integrates weight data with safety, credentials, and weight data in order to determine whether a commercial vehicle should be targeted for additional enforcement actions.
6. Mobile enforcement officer positioned downstream from the VWS and/or enforcement personnel stationed at a fixed site access the VWS.
7. A commercial vehicle/motor carrier that is overweight or noncompliant with safety (e.g., out-of-service order) or credential (e.g., IRP, IFTA, UCR, OS/OW) is intercepted for weighing/inspection.
8. If human resources are unable to intercept the vehicle, a warning letter or a citation could be generated by a back-office process and forwarded to the motor carrier identified by the USDOT reader.

9. Vehicle, motor carrier, and commercial driver identifiers, as well as compliance (i.e., weight, safety, credential) data are sent to a back-office repository so the State can develop a history of compliance/noncompliance with weight standards for each motor carrier and/or commercial vehicle.
10. Weather data from the vehicle is sent to system operators for real-time traffic management.
11. Localized and real-time traveler information is sent to the commercial vehicle for integration with on-board systems designed to display this information safely and with a minimum amount of driver distraction.
12. Data from the VWS is available to authorized users for planning and reporting purposes.
13. Data from the VWS is available to motor carrier users for tracking of the company's assets and their performance.
14. Data from the VWS is available to other states to use as needed for bypass or enforcement purposes. Trucks can be continually bypassed if the meet time criteria that wouldn't allow the load to be modified.

1.4.2 Information Needed in the Scenario

As discussed above there are several state agencies in each state responsible for different elements of the safety and weight inspection processes.

The State Departments of Motor Vehicles (DMV) have the responsibility for registering commercial motor vehicles and will have data needed by the enforcement agency and the transportation agency. Interstate registration is done on a weight basis, and the enforcement agency will need to know if the CMV was operating legally, within the registration weight categories. Therefore, the registration data is critical for enforcement purposes. Typically, registration of CMV's in multistate transport will include fuel tax registration, where truckers must purchase the appropriate amount of fuel for miles driven in a given state or pay the appropriate tax to make up the difference. The DMV or a Department of Revenue agency could enforce this tax. They may need the connection to the commercial vehicle enforcement (CVE) agency for assistance in enforcing this regulation. These agencies participate in the International Registration Plan (IRP) and the International Fuel Tax Agreement (IFTA), which are agreements between the states and provinces of the United States and Canada and the Federal Government of Mexico. The DMVs and DOTs are responsible for permitting for IRP, IFTA and for overweight and oversize trucks. Data on permits will also need to be available at roadsides in order to all compliant carriers to move without disruption. Data sharing will be critical between all these agencies for ensuring that regulatory enforcement is happening in the manner expected but without all the interruptions of the current process.

2. State Jurisdiction as a Catalyst to Data Sharing

The study results from the State of Nevada have been a catalyst to focus attention on the need for states to cooperate on sharing data. Sharing data on a real time basis is expected to allow states to handle the workload in its entirety while not sidestepping any enforcement duties such as closing inspection stations because of lengthy queues or staffing shortages. The Nevada Department of Transportation (NDOT), the Nevada Department of Highway Patrol (NHP) and the Nevada Department of Motor Vehicles (NDMV) have a statewide partnership to operate and maintain a commercial vehicle enforcement program for the State of Nevada. That

partnership is focused on the enforcement of state and federal laws associated with the nation's truck size and weight and safety programs. The enforcement of Federal rules relates to the Interstate System. The enforcement of state rules and regulations relate to state and local roads and highways. State and local law enforcement work in a coordinated fashion to carry out the provisions of the law. They also work closely with the Federal Highway Administration (FHWA) and the Federal Motor Carrier Safety Administration (FMCSA). FHWA has oversight for truck size and weight, and FMCSA has oversight responsibility for driver and vehicle safety. However, NHP enforces both federal requirements in concert.

The method of enforcement employed by NHP has consisted of roving enforcement officers using weighing devices and other tools that had to be carried by the officers. What they needed was technology and enforcement facilities, with technologies to screen commercial vehicles, to allow the history of the truck along with weight, safety record and other credentials to be displayed in advance of the truck's entry to the facility. If there was no need to enter, the truck would be waived on. Nevada has not had this capability, and the study was designed to develop an architecture and strategy to improve enforcement effectiveness and maximize each officer's capabilities in the future.

During the months of December 2019, and January 2020, consultants conducted survey and discussion sessions with the transportation and enforcement staff of the 5 states bordering Nevada. They are Arizona, California, Idaho, Oregon and Utah. All of them provided a 100% response rate to the survey, which found there was already data sharing between the states on truck regulatory data but not on a real time basis. The information they identified as being shared was driver credentials, truck credentials, truck load, permits, inspection results, and hours of service. All responded positively to sharing data between the states on a proforma basis. The states of Arizona and Utah share data on a continuing basis since they both have personnel sharing a common facility at the St. George UT port of entry.[12]

When asked how well information sharing works between the states, most believed their information sharing with sister states works well.

Enforcement is the responsibility of state and provincial agencies, not the federal government. And the prime reason for enforcement is to keep noncompliant trucks off the road. Today's process requires sorting through the entire population of trucks to identify noncompliant truckers and carriers, which are only a small portion of the population. Since the economy is dependent upon truckers getting their goods to the marketplace in a timely fashion it is reasonable to focus on noncompliance and not sort through the entire trucking population to find the noncompliant ones. Real time data can identify non-compliant trucks early in their trip. Others can be bypassed within their jurisdiction and between jurisdictions to the end of their journey. This idea of interstate bypass was a resounding theme in the Nevada study. It was important enough for the Nevada leadership to support the submission of a research project to be considered by the US Transportation Research Board (TRB) for funding to determine the architecture needed to implement such a system.

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[12] TRUCK SIZE AND WEIGHT ENFORCEMENT, An overview of fixed facilities requirements, BGM Consulting LLC, February 21, 2019, authors, Mike Onder and Barry Mason, BGM Consulting LLC.

3. Preparing for Research on Jurisdictional Data Exchange

A team from the Nevada project, including the authors of this paper, developed a research statement on data sharing of truck regulatory data that was provided to the AASHTO and TRB committees for approval. It received approval and was titled NCHRP 23-25: Architecture for an Information System for Reporting and Sharing Truck Regulatory Requirements Data project.

The main theme of the research document was that research is needed to be conducted to determine what tools should be added that are not currently in the states' toolboxes to be able to share data between states on a real time basis.

Sharing message data on a real-time basis requires an assessment of available information technology. One of the prescribed avenues of exploration was the AAMVA information system, AAMVAnet, which supports the IRP. The IRP, as discussed earlier, is a state compact and data sharing project between the states and provinces for sharing registration data and fees. The other area of exploration could be a federal database that is already collecting state information, like SAFER, but could make it available on a real time basis.

The research objective of the NCHRP project is to 1) evaluate the need, feasibility, and benefits of establishing real-time commercial vehicle data sharing among states; 2) design an information architecture, including data elements and standards, to support data sharing among states; and 3) propose an institutional arrangement to establish and sustain ongoing data sharing among states.

The assessed benefits are shown in the Figure 4 below. The benefit accruing to the trucking industry for bypassing inspection stations is $8.68 saved per truck, calculated by PrePass Safety Alliance.[13] The benefits to the states are shown in time savings of 5 minutes for each truck that can bypass the station times 2 people, on average, involved in the inspection process. This involves trucks moving through Texas, Louisiana, Mississippi, Alabama and Florida, probably along Interstate 10. They would get checked at the first station in Texas and bypass the other 8 on the trip. On average, the industry saves $69 per truck and the state saves 10 minutes per truck in personnel costs.

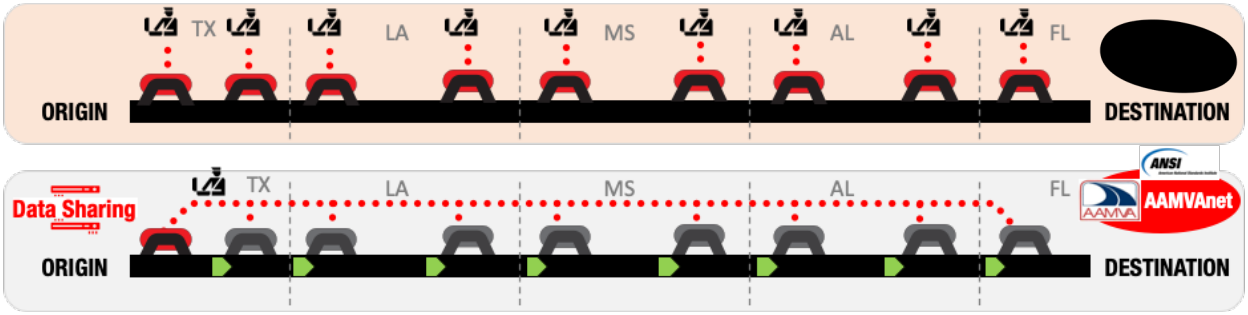

Figure 4. Data Sharing Benefits

According to Federal Motor Carrier Safety Administration 2023 Pocket Guide to Large Truck and Bus Statistics there were 2.4 million interstate inspections in 2022, meaning the inspection of trucks that traveled more than one state to its destination. Using $69/truck as an average

[13] PrePass, https://prepass.com/blog/new-whitepaper-learn-how-weigh-station-bypass-adds-up-to-big-savings/

savings the total savings to the industry is estimated at $166 million. In 2021 there were 12,100 state inspectors conducting motor carrier inspections. Using 2,000 hours for a full work year the inspectors work a total of 24.2 million hours per year. If each of those inspectors saved 10 minutes per inspection there would be an additional 400,000 hours/year that could be focused on other work activities.[14]

4. Conducting the Research

Once the NCHRP 23-25: Architecture for an Information System for Reporting and Sharing Truck Regulatory Requirements Data project was approved it was made available to consultancies for bid. Transpo Group, Inc. of Washington State, was selected to conduct the project, which began in October of 2023, and is still on going. The results have not been made publicly available, but the elements of the study can be discussed.

As the first element in developing the architecture, the Research Team conducted a comprehensive assessment of the state of the practice and data needs related to truck regulatory requirements. The methodology used in this assessment included a literature review, research scan, and data collection from various sources, including federal agencies, state authorities, and industry stakeholders. Over 150 documents were reviewed, covering topics such as licensing, permitting, enforcement practices, and international standards. Information obtained from this review was used to assess current systems involved with freight regulatory and data exchange, their strengths and weaknesses, as well as areas for improvement. The assessment also encompassed a review of potential safety enhancements such as real-time data exchange, the potential efficiency gains for compliant motor carriers, and the tools needed for managing increased truck traffic.

In addition to state initiatives, state member organizations such as the CVSA, FMCSA, and AAMVA play key roles in facilitating data exchange and regulatory enforcement. The CVSA, comprising officials from various jurisdictions and industry representatives, establishes Safety Standards, promotes consistency in commercial vehicle inspection and enforcement practices across North America. Similarly, the FMCSA and FHWA oversee CMV regulations within the United States, focusing on safety enhancement and accident mitigation. These organizations develop and implement policies such as the North America Standard Inspection Program and the Compliance, Safety, Accountability (CSA) program to ensure compliance with safety regulations and assess carrier performance based on collected data.

Despite these advancements, several gaps and limitations persist in current data exchange systems between states. One significant challenge is the lack of uniformity in reporting and measurement practices, leading to inconsistencies in data sharing and regulatory enforcement. Additionally, privacy concerns and data access restrictions hinder comprehensive data sharing efforts, limiting the effectiveness of regulatory enforcement and safety assessments. Moreover, the reliance on manual data exchange processes and the absence of standardized roadside equipment across states pose barriers to seamless data integration and automation.

It is doubtful that data sharing between states can occur without some form of agreement. While there may be other ways to accomplish this it may take an interstate compact, as discussed in

[14] FHWA 2023 Pocket Guide, https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/2024-04/FMCSA%20Pocket%20Guide%202023-FINAL%20508%20-%20April%202024.pdf

this paper, to make the interstate data sharing detailed in this project possible, which would likely be needed to support implementation and use of the architecture. The absence of a state-to-state common agreement structure to support the freight data sharing architecture would likely result in a patchwork quilt implementation, which would not allow for the seamless communication of regulatory data between states.

5. Preliminary Lessons Learned

Thus far in the early stages of getting states to share truck regulatory data real time with each other shows a strong interest from states to get a process like this underway. The states of Georgia and Florida have already established an agreement to share data in this manner. Prior to establishing their agreement there were similar discussions with the states of North and South Carolina and Alabama to join the group. If success is shown with the Georgia-Florida venture, there may be 3 more states ready to join that compact. Arizona and Utah already have an agreement to conduct joint inspections for each state at the same location. This could build into further agreements with California. The agreements need to be strategic. In other words, the corridors where data sharing states are located need to be on freight corridors of some significance. The same could be true with Nevada and its 5 other surrounding sister states. All 6 states have agreements on other transportation matters and could add truck regulatory data sharing to the list.

6. Summary

Although the details of the NCHRP research project are not yet ready for distribution, the basic idea of real-time data exchange between states for CMV regulatory data is supported by those states, industry and state organizations interviewed. An architecture showing how all the pieces fit together is needed as well as the development of data exchange standards, an agreement mechanism like a state compact, and an administrative clearing house. This has already happened for other state data exchange processes like IRP and driver licensing.

State governments across the United States are beginning to recognize the value of interagency data sharing according to research conducted by CapTech consulting. Sharing data improves services to constituents, enables policymakers to make better-informed decisions, decreases data storage and maintenance costs, reduces fraud, and allows staff to spend more time serving constituents, and less time manually extracting and aggregating data. Before interagency data-sharing initiatives can deliver on their promise, however, states first must overcome legislative, privacy, and technical barriers to data integration. It is equally critical that agencies ensure that the data they choose to integrate will deliver meaningful value. The value and benefits of data sharing are being recognized across the United States, and governors are mandating agencies to act in identifying data sharing opportunities, defining policies for governance, and implementing a solution. These directives, while challenging and time-consuming to implement, will ultimately lead to improved services for constituents and more-informed allocation of funding.

The details of the NCHRP research project will hopefully be released near the end of 2025. It will only take 2 jurisdictions to begin the process and implement the architecture, standards and data sharing algorithms. Much can be learned from an initiation of this nature for other jurisdictions to build upon.

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