U.S. Department of Transportation
Federal Highway Administration

Office of Operations

21st Century Operations Using 21st Century Technologies

TRAFFIC INCIDENT MANAGEMENT QUICK CLEARANCE LAWS

A NATIONAL REVIEW OF BEST PRACTICE

DECEMBER 2008

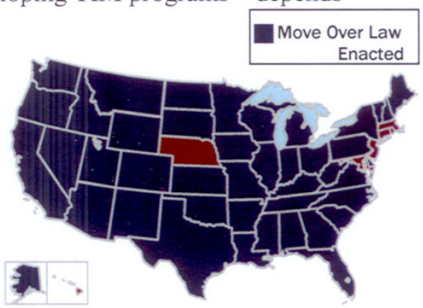
U.S. Department
of Transportation
**Federal Highway
Administration**

1200 New Jersey Avenue, SE.
Washington, DC 20590

December 31, 2008

Dear Transportation Professionals and Traffic Incident Management (TIM) Partners:

Investments in traffic incident management (TIM) capabilities save lives and reduce congestion. Nationwide, TIM efforts are credited with reducing annual delay by 129.5 million hours with an associated cost savings of $2.5 billion. As part of the Federal Highway Administration's (FHWA's) mission to "***Keep America Moving,***" we strive to support State and local efforts to safeguard the motoring public and those responding to traffic incidents while reducing congestion and traffic delays resulting from an incident on the road. Safe, quick clearance of highway incidents—a foundation of both mature and developing TIM programs—depends on strong, coordinated multi-agency operations.



With more vehicles on the Nation's highways, traffic incidents become increasingly more frequent and life threatening to motorists and responders dispatched to help. Since 2003, 59 law enforcement, 12 fire and rescue, and 54 maintenance personnel died after being struck by vehicles along the highway. Moreover, the Towing and Recovery Association of America (TRAA) reports a loss upward of 100 towing operators in the line of service annually (2008). The occurrence of responder injury or "near misses" is much higher. Statistics associated with motorist death and injuries are even more astounding. In a five-year study conducted in North Carolina, 1,300 abandoned vehicles were struck, resulting in 47 fatality crashes and over 500 injuries. In 2005, 500 fatalities were reported nationally as a result of incidents occurring on the roadway shoulder and median. In response, many State and local governments have adopted three types of general legislation constituting Quick Clearance Laws—"***Move Over***," "***Driver Removal***," and "***Authority Removal***"—to support concurrent safe, quick clearance operations.

Although a number of States currently have one or more of these laws in place, the legislation varies in scope, wording, coverage, and sanctions. FHWA produced this document to support State and local efforts to improve Quick Clearance Law implementation. Researchers found that the most successful and consistently enforced Quick Clearance Laws had: (1) carefully crafted statutory language reflecting quick clearance objectives and (2) State encouragement of government and industry partnerships that provide united support for safe, quick clearance objectives and laws. This document supplies States with tools to address arguments against such laws and examples of ***Move Over***, ***Driver Removal***, and ***Authority Removal*** laws that work.

We hope you find this material helpful in your efforts to understand, establish, or strengthen Quick Clearance Laws. Moreover, we encourage comments and contributions to these primers and other FHWA Traffic Incident Management documents. Please feel free to contact our Emergency Transportation Operations Team at ETO@dot.gov with suggestions for future revisions.

Sincerely,

Jeffrey A. Lindley
Associate Administrator for Operations

MOVING THE AMERICAN ECONOMY

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16. Abstract

Constituting "Quick Clearance Laws", three types of general legislation – Move Over, Driver Removal, and Authority Removal laws - support concurrent Quick Clearance operations intended to enhance motorist and responder safety, as well as reduce congestion and delay. Although a number of States currently have one or more of these laws in place, observed variability in the existence, wording, and coverage of Quick Clearance Laws challenges further implementation. The intent of this investigation was to better support Quick Clearance Law implementation efforts by better preparing States to respond to questions regarding the necessity of Quick Clearance legislation and identifying examples from existing State Move Over, Driver Removal, and Authority Removal legislation that serve to both support and challenge successful incident management operations. Through this investigation, carefully crafted statutory content and language that best support Quick Clearance objectives, and agency/industry partnerships that provide demonstrated, united support for safe, Quick Clearance objectives and related legislation were observed to be key factors supporting implementation of Quick Clearance Laws. This report includes: (1) a description of the role and relevance of Quick Clearance Laws in the broader traffic incident management context; (2) a detailed review of the purpose and intent, model language, observed content trends and anomalies, and implementation challenges and resolutions for Move Over, Driver Removal, and Authority Removal laws including specific examples from State legislation; and (3) concluding remarks and proposed strategies for implementation, including beneficial synergy resulting from combined Quick Clearance Law implementation.

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EXECUTIVE SUMMARY

This report is intended to better support Quick Clearance Law implementation efforts by preparing States to respond to questions regarding the necessity of Quick Clearance legislation and identifying examples from existing State *Move Over*, *Driver Removal*, and *Authority Removal* legislation that serve to both support and challenge successful incident management operations. Through this investigation, carefully crafted statutory content and language that best support Quick Clearance objectives, and agency/industry partnerships that provide demonstrated, united support for safe, Quick Clearance objectives and related legislation were observed to be key factors supporting implementation of Quick Clearance Laws.

Move Over Laws

Move Over laws require drivers approaching a scene where emergency responders are present to either change lanes when possible and/or reduce vehicle speed. The most effective *Move Over* laws:

- include transportation maintenance, freeway service patrol, and towing and recovery personnel/vehicles in addition to emergency personnel/vehicles;
- require a driver to change lanes into "a lane not adjacent to that of the authorized vehicle" and/or slow down to " a speed that is 20 miles per hour less than the posted speed" if changing lanes is "not possible or unsafe under prevailing road, weather, or traffic conditions"; and
- require companion driver education initiatives and reasonable enforcement directives.

Key partnerships and constituents in support of *Move Over* legislation include:

- emergency and transportation agencies and the towing and recovery industry to support inclusion of all on-scene incident responders in *Move Over* law provisions;
- law enforcement agencies to alleviate concerns associated with the:
  - enforcement of *Move Over* law provisions, and
  - potential for additional safety risks resulting from lane change activity; and
- the automobile insurance industry to facilitate and support driver education initiatives.

Driver Removal Laws

Driver Removal laws require that vehicles involved in typically minor traffic incidents - with no apparent physical injury and/or minor property damage - be moved out of the travel lanes to a safe location where drivers can exchange information and/or wait for law enforcement assistance. The most effective *Driver Removal* laws:

- apply consistently Statewide (not just in the metropolitan areas of a State);
- include incidents occurring on the median, shoulder, and adjacent areas;
- authorize any licensed driver on-scene to remove the vehicles;
- promote off-site vehicle removal locations such as "an exit ramp shoulder, the frontage road, the nearest suitable cross street, a designated crash investigation site, or other suitable location";

- include concurrent *Hold Harmless* legislation or language that protects the driver from liability "in the absence of gross negligence" or waives at-fault determination for the incident as a result of moving their vehicle; and
- require companion driver education initiatives and reasonable enforcement directives.

Key partnerships and constituents in support of *Driver Removal* legislation include:

- law enforcement agencies to confirm the:
  - enforcement-related benefits resulting from consistently applied legislation (i.e., Statewide),
  - potential for enhanced safety if vehicles and/or cargo are removed from the shoulder/median, and
  - minimal anticipated impact to crash investigation procedures; and
- the automobile insurance industry to facilitate and support driver education initiatives that consistently direct drivers to move their vehicles to a safe refuge.

Authority Removal Laws

Authority Removal laws clarify the authority and responsibility of pre-designated public agencies to clear damaged or disabled vehicles and spilled cargo from the roadway to prevent the occurrence of secondary incidents and to allow normal traffic flow to resume. *Authority Removal* laws typically provide indemnification for these agencies if removal duties are performed in good faith and without gross negligence. The most effective *Authority Removal* laws:

- apply consistently Statewide (not just in the metropolitan areas of a State);
- include incidents occurring "within the roadway right-of-way" including on the median, shoulder, and adjacent areas;
- apply consistently to both attended and unattended (abandoned) vehicles;
- authorize removal if the vehicle/cargo "constitutes a hazard or obstructs traffic";
- authorize removal by law enforcement or State transportation department personnel;
- authorize removal of the vehicle, as well as any associated appurtenances, cargo, and debris that poses a hazard;
- promote off-site vehicle/cargo removal locations such as "an exit ramp shoulder, the frontage road, the nearest suitable cross street, a designated crash investigation site, or other suitable location";
- exclude exceptions for commercial motor vehicles or - if significant resistance from industry is encountered- allow only "reasonable opportunity for the owner to contact a towing company of choice";
- limit delayed removal activities until after crash investigation has been complete to incidents involving serious injury or fatality;
- directly assign "all costs incurred in the removal and subsequent disposition" of incident-involved vehicles/cargo to the owner; and
- include concurrent *Hold Harmless* legislation or language that protects responders from liability "in the absence of gross negligence" as a result of their actions.

Key partnerships and constituents in support of *Authority Removal* legislation include:

- **emergency and transportation agencies and the towing and recovery industry to support efforts to:**
  - **assign incident-related removal costs to the vehicle/cargo owner; and**
  - **expand the scope of *Hold Harmless* clauses to include all on-scene responders**
- **law enforcement agencies to confirm the:**
  - **enforcement-related benefits resulting from consistently applied legislation (i.e., Statewide),**
  - **potential for enhanced safety if vehicles and/or cargo are removed from the shoulder/median,**
  - **potential for enhanced safety if provisions are applied uniformly to attended and unattended (abandoned) vehicles, and**
  - **minimal anticipated impact to and from crash investigation procedures; and**
- **law enforcement and transportation agencies and the commercial vehicle and cargo insurance industry to alleviate industry concerns regarding excess vehicle/cargo loss.**

Interagency agreements and memoranda of understanding can be an effective interim approach to formalizing Quick Clearance strategies and can provide a basis for pursuing future related Quick Clearance legislation. In addition, although each type of legislation considered in this investigation has the potential to offer significant safety- and delay-related benefit, synergistic benefits also may be realized through combined Quick Clearance Law implementation.

TABLE OF CONTENTS

QUALITY ASSURANCE iii

EXECUTIVE SUMMARY iv
- Move Over Laws iv
- Driver Removal Laws iv
- Authority Removal Laws v

INTRODUCTION 1
- Report Purpose 1
- Target Audience 1
- Report Content and Organization 1

ROLE AND RELEVANCE OF QUICK CLEARANCE LAWS 2
- Overview of Quick Clearance Programs 2
- Role of Legislation in Quick Clearance Programs 4
- Evolution of Quick Clearance Laws 6

***MOVE OVER* LAWS** 9
- Purpose and Intent 9
- Model Language 9
- Content Trends and Anomalies 10
- Implementation Challenges and Resolutions 16

***DRIVER REMOVAL* LAWS** 18
- Purpose and Intent 18
- Model Language 19
- Content Trends and Anomalies 19
- Implementation Challenges and Resolutions 25

***AUTHORITY REMOVAL* LAWS** 28
- Purpose and Intent 28
- Model Language 28
- Content Trends and Anomalies 30
- Implementation Challenges and Resolutions 40

IMPLEMENTATION STRATEGIES 43
- Carefully Crafted Statutory Content and Language 43
- Fostered Agency and Industry Partnerships 45
- Synergy through Combined Quick Clearance Law Implementation 46
- Interim Measures 46

REFERENCES 47

LIST OF FIGURES

FIGURE 1. States with *Move Over* Laws Currently Enacted 9

INTRODUCTION

Quick Clearance is the practice of rapidly and safely removing temporary obstructions - including disabled or wrecked vehicles, debris, and spilled cargo (including hazardous material cargo using appropriate precautions) - from the roadway. Intended to enhance motorist and responder safety, as well as reduce congestion and delay, three types of general legislation constituting "Quick Clearance Laws" have been identified to support concurrent Quick Clearance operations:

- **Move Over Laws** require drivers approaching a scene where emergency responders are present to either change lanes when possible and/or reduce speed.
- **Driver Removal Laws** require that vehicles involved in typically minor traffic incidents - with no apparent physical injury and/or minor property damage - be moved out of the travel lanes to a safe location where drivers can exchange information and/or wait for law enforcement assistance.
- **Authority Removal Laws** clarify the authority and responsibility of pre-designated public agencies to clear damaged or disabled vehicles and spilled cargo from the roadway to prevent the occurrence of secondary incidents (an incident that occurs as a result of an earlier incident) and to allow normal traffic flow to resume. *Authority Removal* laws typically provide indemnification for these agencies if removal duties are performed in good faith and without gross negligence.

Although a number of States currently have one or more of these laws in place, observed variability in the existence, wording, and coverage of Quick Clearance Laws challenges further implementation.

Report Purpose

This report is intended to better support Quick Clearance Law implementation efforts by:

(1) preparing States to respond to questions regarding the necessity of Quick Clearance legislation by documenting common motivations for and impediments to implementation; and

(2) identifying examples from existing State *Move Over*, *Driver Removal*, and *Authority Removal* legislation that serve to both support and challenge successful incident management operations.

Target Audience

This report is intended for public agency management or administrative personnel and State and local political officials. Public agency management and administrative personnel will be better prepared to respond to arguments against the need for such legislation and to cite best practice examples of Quick Clearance laws. Through the use of this document, State and local political officials will be better prepared to develop and promote effective Quick Clearance legislation.

Report Content and Organization

This report includes:

(1) a description of the role and relevance of Quick Clearance laws in the broader traffic incident management (TIM) context;

(2) a detailed review of the purpose and intent, model language, observed content trends and anomalies, and implementation challenges and resolutions for *Move Over*, *Driver Removal*, and *Authority Removal* laws including specific examples from State legislation; and

(3) concluding remarks and proposed strategies for implementation, including a discussion of beneficial synergy resulting from combined Quick Clearance laws and their implementation.

Much of the statutory language is consistent between States. Where differences do exist, individual examples are included to reflect a broader set of State laws. In the interest of brevity, few State laws are included in their entirety. This document excludes language not directly related to Quick Clearance operations, but includes legal citations by State for further follow-up by the reader.

ROLE AND RELEVANCE OF QUICK CLEARANCE LAWS

To demonstrate the importance of Quick Clearance legislation in the broader TIM process and to provide limited background information regarding its historical development, this report includes: (1) an overview of Quick Clearance programs, (2) the described role of legislation in Quick Clearance programs, and (3) evolutionary information related to each of the Quick Clearance laws under consideration.

Overview of Quick Clearance Programs

In the broader TIM context, Quick Clearance is the practice of rapidly and safely removing temporary obstructions – including disabled or wrecked vehicles, debris, and spilled cargo - from the roadway to increase the safety of incident responders by minimizing their exposure to adjacent passing traffic, reduce the probability of secondary incidents, and relieve overall congestion levels and delay.

While many conventional TIM practices rely on responder operations, successful Quick Clearance involves and relies upon driver behavior to:

- change lanes and/or reduce vehicle speeds when approaching an incident scene (*Move Over* laws) and
- relocate their vehicle to a safe refuge out of the travel lane following a minor incident (*Driver Removal* laws)

In addition, Quick Clearance legislation provides authority to TIM responders from public agencies and private industry to remove property at the scene (*Authority Removal* laws).

Common Program Elements. In support of Quick Clearance practices, a formal Quick Clearance program consists of various: (1) operational procedures, (2) equipment and infrastructure, and (3) laws and policies aimed at affecting the safe and timely removal of traffic incidents.

Distinct quick clearance operational procedures commonly focus on the removal of: (1) vehicles involved in minor incidents, (2) heavy vehicles, (3) non-hazardous cargo spills, and (4) incidental vehicle fluid spills, as well as crash investigation procedures, with the common objective of reducing incident clearance time.

Appropriate equipment and infrastructure is required to support these operational procedures. Freeway service patrols equipped with push bumpers can greatly enhance minor incident removal. Ready access to heavy-duty tow trucks, dump trucks, front-end loaders, sweepers, or air cushion recovery systems helps to speed the clearance of large truck-involved incidents and cargo spills. New technologies, such as total station surveying equipment and photogrammetry, can significantly reduce crash investigation time for law enforcement officers.

Quick Clearance practices often benefit from appropriate laws and policies. *Move Over*, *Driver Removal*, and *Authority Removal* laws are the subject of this report. However, additional legislation supporting TIM efforts may include laws that:

- require drivers involved in crashes to stop and remain at the scene;

- give agencies the authority to remove abandoned vehicles;
- explicitly establish responder roles at the scene of a traffic incident;
- protect drivers and/or responders from liability resulting from good faith actions,
- authorize certification of a fatality by a designated on-site response agency in place of the medical examiner and/or allow the immediate removal of the deceased from the roadway; exempt wreckers from over-weight vehicle limits so they are legally able to remove heavy vehicles expeditiously; and
- enable transportation and/or environmental agencies a means to recover incident clearance costs they incur from responsible parties.

In the absence of formal legislation, States may execute memoranda of understanding to foster cooperative relationships and solidify commitments to Quick Clearance at the highest administrative levels.

Various supporting activities to publicize and enforce these laws also exist. For example, States may utilize public service announcements (PSAs) or partnerships with the automobile insurance industry to increase awareness of *Driver Removal* laws. Public agencies, particularly transportation and law enforcement agencies, may also successfully partner to improve both public awareness and enforcement of *Move Over* laws within a State.

The combination of appropriate operational procedures, equipment and infrastructure, and laws and policies in a formal Quick Clearance program helps to minimize improper or delayed responder actions, prolonged crash investigations, and indecision-driven liability concerns. Cooperation among public safety agencies (i.e., law enforcement, fire and rescue, and emergency medical services), transportation agencies, the private towing and recovery industry; and the motoring public is critical to the success of any Quick Clearance program.

Potential Program Benefits. Quick Clearance practices, within the broader TIM context yield numerous direct benefits for motorists, responders, and the larger environment, such as decreases in:

- non-recurrent congestion delay;
- secondary incidents, including those involving responders;
- response time to traffic incidents and other emergencies;
- vehicle fuel consumption;
- vehicle emissions;
- motorist stress levels;
- aggressive driving behavior;
- freight movement impacts in the region;
- regional economy impacts;
- local tourism impacts; and
- future potential land use impacts (Dunn and Latoski 2003).

The public has become increasingly sensitive to the growing costs of congestion, citing the delays caused by traffic congestion as their top community transportation concern (Dunn and Latoski 2003). The *2007 Urban Mobility Report* states that motorists in 437 U.S. urban areas incurred $78.2 billion in congestion costs in 2005, with 52 to 58 percent of the total motorist delay attributed to crashes and vehicle breakdowns (Schrank and Lomax 2007). Roadway capacity reductions exceed the physical blockage resulting from an incident, exacerbating congestion and delay levels. The temporary obstruction of one and two travel lanes along a three-lane freeway are estimated to reduce the available capacity of the facility by 63 and 77 percent, respectively (Smith, et al. 2003). Incidents located wholly on the shoulder of a roadway are estimated to reduce the available capacity of the facility by up to 17 percent, depending on

TIM efforts are credited with reducing annual delay by 129.5 million hours with an associated cost savings of $2.5 billion.

the nature of the incident (Highway Capacity Manual 2000). Current TIM efforts are credited with reducing annual delay by 129.5 million hours with an associated cost savings of approximately $2.5 billion (Schrank and Lomax 2007). Cost savings attributable to reduced fuel consumption and harmful emissions are included in these estimates.

Incident impacts extend beyond travel delay and congestion to safety. Motorists directly involved in the incident are at risk for resulting injury or death. In addition, secondary incidents caused by unsuspecting approaching motorists may increase both the number and severity of injuries attributable to incidents and compound the impact of congestion and time taken to clear the roads. Responders to these incidents are also sometimes victims of secondary crashes. Since 2003, 59 law enforcement, 12 fire and rescue, and 54 highway maintenance personnel died after being struck by vehicles along the highway, according to the Bureau of Labor Statistics (2008). Data on towing and recovery industry occupational fatalities is not well tracked. However, the Towing and Recovery Association of America (TRAA) anecdotally reports a loss upward of 100 towing operators in the line of service annually (2008). The occurrence of responder injury or "near misses" is much higher. Although no standard measure is defined to identify secondary incidents, most estimates suggest that between 14 to 18 percent of the total incidents are secondary in nature (National Conference on Traffic Incident Management 2002). Broader TIM practices have proven effective in reducing secondary incidents. For example, secondary incidents were reduced by 69 percent (from 676 to 210 in twelve months) with an associated annual cost savings of $1,611,054 (2003 dollars) in Atlanta, Georgia (Guin, et al. 2006).

Since 2003, 59 law enforcement, 12 fire and rescue, and 54 maintenance personnel died after being struck by vehicles along the highway.

Benefits attributable to individual program components – such as a Driver or *Authority Removal* laws - are difficult to distinguish. Instead, reported benefits generally reflect the synergistic effect of several Quick Clearance program elements. As one exception, Hamlin, et al. (2007) considered the benefits attributable to a *Driver Removal* law enacted in South Carolina. Microscopic simulation analysis estimated that implementation of the related legislation resulted in an 11 percent reduction in delay for minor incidents with one lane blocked. This reduced delay, in turn, resulted in an average cost savings of $1,682 per incident, which is significant when considering the number of minor incidents occurring on a daily basis in large metropolitan areas. Besides affecting congestion and its associated impacts, the authors cited benefits related to the safety of road users and incident response personnel.

Potential benefits attributable to TIM practices that relate to motorist comfort and behavior or longer-term regional and economic effects are not well quantified.

Role of Legislation in Quick Clearance Programs

Operational procedures and supporting equipment/infrastructure often require enabling legislation to achieve their full potential for Quick Clearance. For example, the use of freeway service patrols equipped with push bumpers may lack effectiveness if responders are hesitant to clear incident-involved vehicles from the roadway because of uncertainties in their authority to do so or a fear of liability resulting from their actions. Companion *Authority Removal* laws afford incident responders the opportunity to assertively clear incidents without incurring unnecessary delay and without threat of liability if actions are performed in good faith and without gross negligence.

Ideally, States would develop and adopt consistent and comprehensive legislation covering all aspects of TIM. Complexities in developing and enforcing such diverse legislation have instead resulted in the

development of more targeted laws that can be clearly articulated and equitably enforced. In addition to the *Move Over*, *Driver Removal*, and *Authority Removal* laws that are the subject of this report, additional legislation supporting TIM efforts include laws that:

- require drivers involved in crashes to stop and remain at the scene if possible, or if not, to return as soon as safely practical;
- give agencies the authority to remove abandoned vehicles (or other personal property) from the highway right of way, generally after some specified time period;
- explicitly establish the roles of transportation agencies and others in public safety, operations, and maintenance so that it is clear who is responsible for various functions in regards to traffic incidents;
- authorize certification of a fatality by a designated on-site response agency in place of the medical examiner and/or allow the immediate removal of the deceased from the roadway;
- exempt wreckers from over-weight vehicle limits so they are legally able to remove heavy vehicles expeditiously without having to obtain permits or waivers; and
- enable transportation and/or environmental agencies a means to recover the costs they paid to get the roadway cleared from responsible parties and that these recovered funds be returned to the agency, not the State's general fund (I-95 Corridor Coalition 2007).

Few States have each of these laws in place. Instead, States have most often pursued the passage of laws that are determined to be most necessary and beneficial in response to local conditions and needs.

In the absence of legislation explicitly addressing some aspect of TIM, interagency agreements or memoranda of understanding may be used to effectively establish good TIM, including Quick Clearance policies and practices. A key agreement supporting Quick Clearance efforts is an *"Open Roads Policy"* that binds agencies to Quick Clearance by setting implied or explicit goals for clearing traffic incidents from the roadway. Examples include Florida's "*Open Roads Policy,"* Georgia's *"Open Roads Policy,"* Maryland's "*Removal of Vehicles from Roadway Interagency Agreement,"* New Hampshire's *"Quick Clearance for Safety and Mobility Interagency Memorandum of Understanding,"* Tennessee's *"Urgent Clearance of Highway Incidents and Safety at Incident Scenes Interagency Memorandum of Understanding,"* and Wisconsin's *"Interagency Freeway Incident Clearance Policy Statement".*

Other important types of interagency agreements include:

- mutual-aid agreements that commit jurisdictions to assist partners in the event of need;
- joint operating agreements that define the roles and responsibilities of dissimilar agencies in handling incidents and emergencies; and
- memoranda of understanding between:
  - various agencies to share data and information;
  - the medical examiner, public safety, and transportation agencies that authorizes certification of a fatality by a designated on-site response agency in place of the medical examiner and/or allows the immediate removal of the deceased from the roadway (under clearly stated conditions) prior to the medical examiner's arrival on the scene; and
  - transportation and law enforcement agencies that establishes an agreement for transportation agency support in exchange for increased traffic enforcement services on designated facilities (I-95 Corridor Coalition 2007).

Interagency agreements and memoranda of understanding can be an effective interim approach to formalizing Quick Clearance strategies and can provide a basis for pursuing future related legislation.

Quick Clearance legislation offers continuous support and statewide coverage, with few exceptions. When coupled with an effective public information campaign, Quick Clearance laws can enhance the safety of responders and motorists and dramatically reduce incident-related congestion and delay, particularly resulting from minor crashes. Quick Clearance of minor incidents from the roadway by motorists not only enhances the safety of those involved and the safety of approaching motorists, but also allows transportation and law enforcement personnel to focus on other duties.

Evolution of Quick Clearance Laws

To fully appreciate the importance of legislation in Quick Clearance programs, it is helpful to understand the historical development of each of the Quick Clearance Laws under consideration.

***Move Over* Laws.** Laws that require a driver to change lanes and/or reduce travel speed when approaching a stopped emergency vehicle have largely developed out of notable tragedies and related initiatives. In Illinois, *Scott's Law* was passed in 2000 after Lt. Scott Gillen of the Chicago Fire Department was struck by a passing vehicle. Similarly, North Carolina's Families for Roadside Safety responder safety advocacy group was founded to promote adoption of *Move Over* laws after two highway troopers were struck by vehicles and killed in the span of 20 months. Numerous other examples of responder tragedy can be cited as a motivating factor in the successful development of Move Over legislation.

Recent National initiatives include: (1) the development of an Incident Responders' Safety Model Law (http://www.ncutlo.org/incident_management_model_112701.htm) involving the National Committee on Uniform Traffic Laws and Ordinances (NCUTLO), the National Highway Traffic Safety Administration (NHTSA), and the National Conference of State Legislatures (NCSL) and (2) various national public information initiatives intended to establish and educate motorists about *Move Over* laws.

In November 2006, NHTSA hosted a meeting of law enforcement, prosecutors, emergency responders, and other interested parties to assist in the development of a comprehensive "model program" to encourage first-responder safety among States. This effort included development of a model law supporting first responder safety. In addition to an identification of responder safety best practices and the development of related training materials, NHTSA worked closely with the NCUTLO and NCSL to develop a *Move Over* model law that requires drivers, at a minimum, to change lanes and/or slow down when approaching a stopped emergency vehicle. The goal of such legislation is to ensure the safety of emergency personnel while working in or around the roadway. Both the International Association of Chiefs of Police (IACP) and the National Sheriffs' Association (NSA) have adopted resolutions in support of uniformity in *Move Over* laws.

"Move Over, America" is a partnership originally founded in 2007 by the National Safety Commission (NSC), the NSA and the National Association of Police Organizations (NAPO). Most recently, the partnership has also received the full support of the American Association of State Troopers (AAST). The campaign is the first nationally coordinated effort to establish and educate motorists about *Move Over* laws.

In a complementary effort, the American Automobile Association (AAA) - in partnership with leading representatives for law enforcement officers, firefighters, emergency medical technicians, and state highway workers - initiated a year-long public information and legislative campaign aimed at reducing deaths and injuries among roadside workers and stranded motorists. The effort has two primary components: (1) enactment of *Move Over* laws that cover tow trucks and other roadside assistance vehicles in addition to law enforcement vehicles, fire trucks, and ambulances in all 50 states and (2) a

national public awareness campaign that includes the use of public safety announcements and other publicity efforts.

Move Over laws are commonly included as extensions to pre-existing laws directing a driver to slow and pull to the side of the road to allow emergency vehicles with warning devices activated to pass. These laws have been modified to include driver guidance when approaching and passing stationary emergency vehicles along the roadside. Since *Move Over* laws are relatively new, there is little documented evidence to date regarding the impact of such laws in enhancing responder safety or the effectiveness of associated public awareness campaigns in achieving compliance from the motoring public. Anecdotally, responders have expressed concern over the lack of *Move Over* law awareness among drivers and the challenges faced by law enforcement personnel tasked with performing incident management duties and concurrently enforcing *Move Over* laws.

***Driver Removal* Laws.** *Driver Removal* laws - also referred to as *Fender Bender*, *Move It*, or *Steer It/Clear It* laws - are considered key strategies for speeding clearance of non-injury, property damage only (PDO) crashes, which account for the majority of all crashes on U.S. roadways. These laws encourage or require drivers involved in incidents to move their vehicle out of the travel lanes if they can do so safely. In the case of a disablement involving an immobilized vehicle, *Driver Removal* laws commonly mandate that drivers immediately seek assistance to remove their vehicles from the travel lanes. Concurrent legislation or language that: (1) protects the driver from liability resulting from their actions or (2) waives at-fault determination regarding the cause of the incident as a result of moving their vehicle is often included to encourage drivers to expeditiously move their vehicles.

Driver Removal laws are becoming more important over time. As the levels of congestion build on U.S. roadways, transportation and law enforcement personnel meet increasing TIM demands, in the context of their other duties and responsibilities. Public agencies are challenged to function with ever-increasing constraints on personnel and resources. *Driver Removal* laws that require drivers to take response action not only enhance the safety of those involved and of approaching motorists, but also allow transportation and law enforcement personnel to focus on other duties.

Depending on interpretation by law enforcement personnel, *Driver Removal* laws may be synonymous with *Driver Stop* laws that require drivers involved in a crash to stop their vehicles without obstructing traffic more than necessary. The *Uniform Vehicle Code*, under *Section 10-103*, provides the following model language for *Driver Stop* laws:

> ***Section 10-103.*** *The driver of any vehicle involved in an accident resulting only in damage to a vehicle or other property which is driven or attended by any person shall immediately stop such vehicle at the scene of such accident or as close as possible, but shall forthwith return to and in every event shall remain at the scene of such accident until he has fulfilled the requirements of [Section] 10-104.* ***Every such stop shall be made without obstructing traffic more than is necessary****. Any person failing to stop or comply with said requirements under such circumstances shall be guilty of a misdemeanor and, upon conviction, shall be punished as provided in [Section] 17-101.*

Kansas and Maryland, for example, both cite their State's *Driver Stop* law directly in promotional materials related to a driver's responsibilities for vehicle removal. Other States consider ***Driver Removal*** laws distinctly. Some States have also expanded the Uniform Vehicle Code model law to include injury and fatal crashes, in addition to non-injury, personal damage only crashes.

Revisions to the *Manual on Uniform Traffic Control Devices* (2003) included language that supports the Quick Clearance of incidents, and specifically, the intent of *Driver* and *Authority Removal* laws. In *Part 5, Chapter 6I, "Control of Traffic through Traffic Incident Management Areas"*, *Section 6I.04* offers the

following guidance: "When a minor traffic incident blocks a travel lane, it should be removed from that lane to the shoulder as quickly as possible."

More recently, the USDOT - through its Congestion Initiative and TIM program- has placed a special emphasis on the advancement of *Driver Removal* laws, in conjunction with full-function service patrols, high-level State Quick Clearance policy agreements, and integrated interagency communications. The Federal Highway Administration is promoting these strategies through awareness training, peer-to-peer exchange, and the provision of model legislation. As part of the aforementioned *Incident Responders' Safety Model Law*, model *Driver Removal* law language is included that directs the driver to "immediately move the vehicle to the shoulder or a designated are off the highway." At the time of this investigation, nearly half of all States have enacted *Driver Removal* laws; the Congestion Initiative seeks to encourage enactment of *Driver Removal* laws in all States and to improve consistency in wording (USDOT Congestion Initiative Focus on Incident Management Website, http://www.oti.dot.gov/tim/timcongini.htm).

***Authority Removal* Laws.** In contrast to *Driver Removal* laws, *Authority Removal* laws provide authorization to a pre-designated set of public agencies - generally including State, county, and local law enforcement or State departments of transportation (DOTs) - to remove damaged or disabled vehicles and/or spilled cargo from the roadway that is determined to be a hazard. Driver and authority removal responsibilities may be defined within the same statute: if the driver is unwilling or unable to remove the vehicle or cargo, designated authorities may require or perform removal without consent of the owner.

Authority Removal laws may also include immediate tow-away policies to ensure the timely removal of disabled vehicles from roadway shoulders in highly congested, metropolitan areas. More commonly, separate *Authority Tow* laws are in place to support removal of incident-involved vehicles and/or cargo on the shoulder or roadway right-of-way to an off-site location (e.g., storage area, service station). *Authority Removal* laws focus on expediting the removal of damaged or disabled vehicles and spilled cargo from the travel lanes and immediate incident scene to a safe refuge in the same vicinity (e.g., adjacent frontage road).

To protect responders against liability resulting from their good faith actions, *Hold Harmless* laws or related language often accompanies *Authority Removal* laws. The same pre-designated agencies authorized to remove damaged or disabled vehicles and/or spilled cargo from the roadway, as well as any qualified responder working under the direction of these agencies, are protected under *Hold Harmless* laws.

Oftentimes, *Authority Removal* laws, and associated *Hold Harmless* laws, originally were enacted to ensure adequate accessibility for transportation agencies when performing roadside construction and maintenance duties and for emergency response vehicles en route to an emergency. Safety implications of damaged or disabled vehicles and/or spilled cargo on the roadway were of concern if the travel lanes were largely obstructed. More recently, *Authority Removal* laws have become important strategies for reducing incident-related congestion and delay and the scope of removal authority has expanded to generally include not only obstructions in the travel lanes but also vehicles and/or cargo on the shoulder or in the roadway right-of-way.

At the time of this investigation, *Authority Removal* laws have been enacted in approximately half of all U.S. States. The aforementioned revisions to the *Manual on Uniform Traffic Control Devices* (2003) - that recommend removal of a minor traffic incident blocking a travel lane to the shoulder as quickly as possible - support the intent of both *Driver* and *Authority Removal* laws since the language does not specify who is responsible for removing the incident. In addition, the *Incident Responders' Safety Model Law* includes model *Authority Removal* law language that addresses authority for expedited removal, liability protection, and compensation for incident removal costs in an effort to encourage enactment of consistent and comprehensive *Authority Removal* laws in additional States.

MOVE OVER LAWS

At the time of this investigation, all but seven States have enacted *Move Over* laws (see Figure 1). A *Move Over* law typically requires motorists to change lanes and/or slow down when approaching an authorized emergency vehicle that is parked or otherwise stopped on a roadway. Although these general requirements are consistent, State *Move Over* laws differ significantly in the specific provisions defining when drivers are obligated to take action and what action they are required to take.

A review of the purpose and intent, model language, observed content trends and anomalies, and implementation challenges and resolutions for *Move Over* laws is provided below. As appropriate, excerpts from model law and State *Move Over* legislation are included.

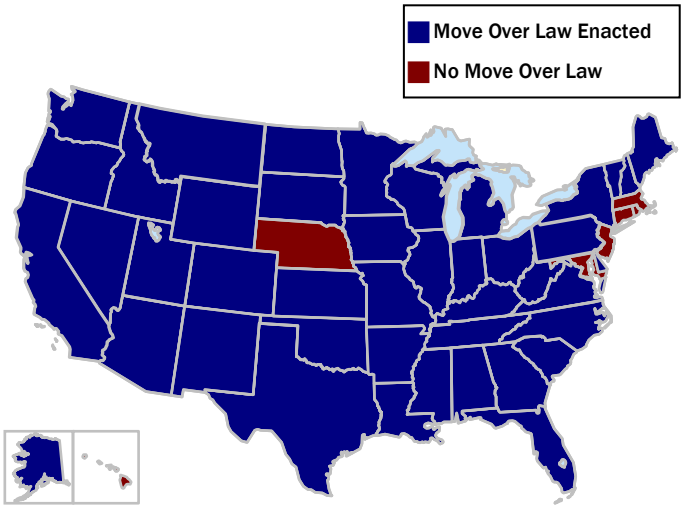

FIGURE 1. States with *Move Over* Laws Currently Enacted

Purpose and Intent

The proliferation of *Move Over* laws among U.S. States can largely be explained by the common interest in ensuring response personnel safety, and the concurrent targeted national public awareness campaigns.

As reported previously, an estimated 225 responders have been killed after being struck by vehicles along the highway since 2003 (Bureau of Labor Statistics 2008, Towing and Recovery Association of America 2008). *ResponderSafety.com* reports that two emergency responders per day, on average, are fatally or non-fatally struck by passing vehicles. A recent Ohio State Highway Patrol investigation (Law Enforcement Stops and Safety Subcommittee 2006) found that 55 percent of officer-involved, struck-by incidents involved serious injuries or fatalities and 60 percent occurred on high-speed, high volume interstate highways. *Move Over* laws may reduce both the frequency of responder struck-by incidents, as well as the severity of such incidents when they do occur by requiring drivers to provide a buffer area between responders and moving traffic and travel at reduced speeds.

While the primary intent is to ensure responder safety, *Move Over* laws may also serve to reduce the frequency and severity of secondary crashes involving approaching motorists and expedite the overall incident clearance process, reducing associated congestion and delay.

Since *Move Over* laws are relatively new, little documented evidence to date exists regarding the impact of such laws in enhancing responder safety or the effectiveness of associated public awareness campaigns in achieving compliance from the motoring public. Anecdotally, responders have expressed concern over the lack of *Move Over* law awareness among drivers and the subsequent ability of these laws to enhance responder safety and realize additional associated benefits.

Model Language

Move Over laws are commonly included as extensions to pre-existing laws directing a driver to slow and pull to the side of the road to allow emergency vehicles with warning devices activated to pass. These laws have been modified to include driver guidance when approaching and passing stationary emergency vehicles along the roadside.

Laws are only effective when enforceable. Citations based on early versions of *Move Over* laws were often dismissed or failed judicial review because of inadequate, ineffective wording in the State's legislation. In response to this shortcoming and as part of a broader effort to improve responder safety, the NCUTLO, working closely with the NHTSA and NCSL, published the *Incident Responders' Safety Model Law*. Model *Move Over* law language is included in *Section 7* as follows:

> ***Section 7. Road User Duties Approaching Incidents***
>
> *(a) When in or approaching an incident, every driver shall maintain a speed no greater than is reasonable and prudent under the conditions, including actual and potential hazards then existing.*
>
> *(b) When in or approaching an incident area, every driver shall obey the directions of any authorized official directing traffic and all applicable traffic control devices.*
>
> *(c) Except for emergency vehicles in the incident area, when in or approaching an incident area every driver shall reduce speed and vacate any lane wholly or partially blocked.*
>
> *(d) If a violation of this section results in a serious injury or death to another person, in addition to any other penalty imposed by law, the violator's driver's license shall be suspended for a period of at least ~~(180) days~~ one year and not more than (~~2~~ 5) years and the violator may be sentenced up to one year in jail.*

Note the more recent changes in (d) that encourage more severe sanctions for *Move Over* law violators. Additional guidance for Section 7 defines an "*incident*" as "*an emergency road user occurrence, a natural disaster, or a special event*" and an "*incident area*" as "*an area of highway where authorized officials impose a temporary traffic control zone in response to a road user incident, natural disaster, or special event*".

Both the International Association of Chiefs of Police (IACP) and the National Sheriffs' Association (NSA) have adopted resolutions in support of uniformity in *Move Over* laws.

Content Trends and Anomalies

Common to each of the *Move Over* laws enacted in each State is the general requirement of vehicles to change lanes and/or slow down when approaching stationary emergency vehicles. The specific provisions defined in each law, however, vary significantly among States despite recent efforts to encourage uniformity in *Move Over* laws. Distinctive provisions contained in *Move Over* laws relate to:

- the definition of an "emergency scene" at which drivers must take action;
- a driver's responsibility to change lanes when the adjacent lane is available and the maneuver can be performed safely;
- a driver's responsibility to slow down and control their vehicle to avoid collision; and
- State-mandated driver education initiatives and enforcement directives.

Specific examples of commonalities and differences in *Move Over* law provisions are furnished below. Note that the examples provided reflect a subset of existing *Move Over* laws. Much of the statutory language is consistent between States. Where differences do exist, individual examples were included to reflect a broader set of State laws. In the interest of brevity, few State laws are included in their entirety; and language not directly related to Quick Clearance operations is excluded. However, the legal citations are included for further follow-up by the reader.

Definition of an Emergency Scene. An emergency scene at which drivers are required to follow provisions of the *Move Over* law is most often described in terms of agencies present, or more specifically, the "authorized emergency vehicles" present. Most often, *Move Over* law provisions are applicable only when: (1) emergency vehicles (i.e., vehicles owned and operated by law enforcement, fire and rescue, and emergency medical service agencies); (2) emergency and towing/recovery vehicles; or (3) emergency, transportation maintenance, and towing/recovery vehicles are present. Oftentimes the applicability of *Move Over* law provisions is further qualified by the color and activation status of vehicle-mounted flashing lights and/or the performance of official duties. Consider the following examples.

State *Move Over* laws apply when the following vehicles are on-scene:

- emergency vehicles only (Alabama, Arizona, Arkansas, Delaware, Idaho, Louisiana, Maine, Minnesota, Montana, Nevada, New Hampshire, New Mexico, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Texas, Vermont, Virginia, Washington, West Virginia, Wyoming);

  > *Alabama §32-1-1.1. (3) Authorized Emergency Vehicle. Such fire department vehicles, police vehicles and ambulances as are publicly owned, and such other publicly or privately owned vehicles as are designated by the Director of Public Safety or the chief of police....*
  >
  > *Minnesota §169.01. "Authorized emergency vehicle" means any of the following vehicles when equipped and identified according to law: (1) a vehicle of a fire department; (2) a publicly owned police vehicle or a privately owned vehicle used by a police officer...; (3) a vehicle of a licensed land emergency ambulance service, whether publicly or privately owned; (4) an emergency vehicle of a municipal department or a public service corporation...; (5) any volunteer rescue squad...; (6) a vehicle designated as an authorized emergency vehicle upon a finding by the commissioner of public safety...*

- emergency and towing/recovery vehicles (California, Colorado, Florida, Minnesota, Missouri, North Carolina, South Carolina);

  > *Colorado §42-4-213. (6) "Authorized emergency vehicle" means such vehicles of the fire department, police vehicles, ambulances, and other special-purpose vehicles as are publicly owned and operated by or for a governmental agency to protect and preserve life and property...; said term also means the following...: (b) Privately owned tow trucks approved by the public utilities commission to respond to vehicle emergencies.*
  >
  > *Florida §316.126. (1)(b) When an authorized emergency vehicle making use of any visual signals is parked or a wrecker displaying amber rotating or flashing lights is performing a recovery or loading on the roadside...*

- emergency, transportation maintenance, and towing/recovery vehicles (Georgia, Indiana, Iowa, Kansas, Kentucky, Michigan, Tennessee, Utah, Wisconsin); and

  > *Georgia §40-6-16. (a) ...a stationary authorized emergency vehicle that is displaying flashing yellow, amber, white, red, or blue lights...(b) ...a stationary towing or recovery vehicle or a stationary highway maintenance vehicle that is displaying flashing yellow, amber, or red lights...*(Indiana *§9-21-8-35* and Iowa *§321.323A* contain similar language).

- emergency, towing/recovery, and animal control vehicles (Alaska).

  > *Alaska §28.35.185. (a) ...a stationary emergency vehicle, fire vehicle, law enforcement vehicle, tow truck in the act of picking up a vehicle, or animal control vehicle being used to perform official duties, when the stationary vehicle is displaying flashing emergency lights...*

South Carolina provides the most comprehensive definition of an emergency scene, considering unique scene needs and on-site emergency personnel, in addition to on-site emergency vehicles:

> *South Carolina §56-5-1538. (A) An emergency scene is a location designated by the potential need to provide emergency medical care and is identified by emergency vehicles with flashing lights, rescue equipment, or emergency personnel on the scene. (I) For purposes of this section: (1) "Authorized emergency vehicle" means any ambulance, police, fire, rescue, recovery, or towing vehicle authorized by this State, county, or municipality to respond to a traffic incident. (2) "Emergency services personnel" means fire, police, or emergency medical services personnel (EMS) responding to an emergency incident.*

Note that transportation maintenance personnel, towing/recovery operators, and service patrol operators are often not included under the purview of these laws despite the fact that they face the same level of danger in the roadway environment. In the interest of responder safety, *Move Over* laws should include this wider range of traffic incident management personnel.

Driver's Responsibility to Change Lanes. *Move Over* laws in select States (i.e., Mississippi, Pennsylvania, Rhode Island, South Dakota) do not require drivers to change lanes. In States that do, *Move Over* laws differ in terms of specificity regarding driver action. Some observed *Move Over* laws are somewhat vague in the actions required of the driver (i.e., use due care not to collide, provide as much space as practical, etc.) while other laws provide explicit direction (move to a non-adjacent lane, move to a lane farthest away from the emergency vehicle, etc.). Consider the following examples.

State *Move Over* laws require a driver to:

- use due care not to collide with stationary emergency vehicles (New York);

> *New York Pending Bill S02051A. Enacts the "Ambrose-Searles Move Over Act" which requires every operator of a motor vehicle to exercise due care to avoid colliding with an authorized emergency vehicle which is parked, stopped or standing on the shoulder or any portion of a highway…*

- provide as much space as practical to (Utah), give a wide berth to (New Hampshire), and move as far away from (Montana) the authorized emergency vehicle;

> *Utah §41-6a-904. (2) The operator of a vehicle…shall: (b) provide as much space as practical to the stationary authorized emergency vehicle; and (c) if traveling in a lane adjacent to the stationary authorized emergency vehicle…make a lane change into a lane not adjacent to the authorized emergency vehicle…(3) The operator of a vehicle, upon approaching a stationary tow truck or highway maintenance…shall: (b) provide as much space as practical to the stationary tow truck or highway maintenance vehicle.*
>
> *New Hampshire §265:37. …every driver…shall: IV. Give a wide berth, without endangering oncoming traffic, to public safety personnel, any persons in the roadway, and stationary vehicles displaying blue, red, or amber emergency or warning lights.*
>
> *Montana §61-8-346. (3)…upon approaching a stationary authorized emergency vehicle or police vehicle that is displaying visible signals of flashing or rotating amber, blue, red, or green lights, the operator of the approaching vehicle shall: (a) reduce the vehicle's speed, proceed with caution, and, if possible considering safety and traffic conditions, move to a lane that is not adjacent to the lane in which the authorized emergency vehicle or police vehicle is located or move as far away from the authorized emergency vehicle or police vehicle as possible…*

- yield right-of-way by moving to a lane that is not adjacent to the authorized emergency vehicle (Alabama, California, Colorado, Georgia, Indiana, Iowa, Minnesota, North Dakota, South Carolina, Tennessee, Virginia, West Virginia); and

> *Colorado §42-4-705(2). (b)…the driver of an approaching or passing vehicle shall proceed with due care and caution and yield the right-of-way by moving into a lane at least one moving lane apart from the stationary authorized emergency vehicle…*
>
> *Minnesota §169.18.11. (b)…the driver of a vehicle shall safely move the vehicle so as to leave a full lane vacant between the driver and any lane in which the emergency vehicle is completely or partially parked or otherwise stopped…*
>
> *North Dakota §39-10-26.2. …an approaching vehicle shall proceed with caution and yield the right of way by moving to a lane that is not adjacent to the authorized emergency vehicle…* (Virginia *§46.2-921.1* and West Virginia *§17C-14-9a* contain similar language).
>
> *South Carolina §56-5-1538. (G) A person driving a vehicle approaching a stationary authorized emergency vehicle…shall…(1) yield the right-of-way by making a lane change into a lane not adjacent to that of the authorized emergency vehicle…*(Tennessee *§55-8-132* contains similar language).

- merge into the lane farthest from the emergency vehicle (Minnesota, Wyoming).

> *Minnesota §169.18.11. (a) When approaching and before passing an authorized emergency vehicle…the driver of a vehicle shall safely move the vehicle to the lane farthest away from the emergency vehicle…*
>
> *Wyoming §31-5-224. (i) When driving on an interstate highway or other highway with two (2) or more lanes traveling in the direction of the emergency vehicle, shall merge into the lane farthest from the emergency vehicle, except when otherwise directed by a police officer…*

Laws that are more explicit are easier for drivers to understand and comply with and for law enforcement to enforce. Note that these statutes do not generally direct drivers to move either left or right; encouraging responder safety in a wider range of incident scenarios (i.e., when an emergency vehicle is responding to an incident in a travel lane or along the left shoulder of the roadway).

Many of the lane change provisions described above include qualifying language under which the *Move Over* law provisions would not apply if:

- less than two lanes exist in each direction (Alaska, Indiana, Michigan, South Carolina, South Dakota, Virginia, West Virginia, Wisconsin);

> *Michigan §257.653a. (1) (b) On any public roadway that does not have at least 2 adjacent lanes proceeding in the same direction as the stationary authorized emergency vehicle…*
>
> *South Carolina §56-5-1538. (G) (1) …if on a highway having at least four lanes with not less than two lanes proceeding in the same direction as the approaching vehicle…*

- changing lanes would be "impossible or unsafe" (Alabama, Illinois, Indiana, Kentucky, Maine, Missouri, Montana, Tennessee) or "unreasonable or unsafe" (Virginia);

> *Alabama §32-5A-58.1. (b) If changing lanes would be impossible or unsafe…*(Illinois *§625.5/11-907(2)*, Indiana *§9-21-8-35(2)*, Kentucky *§189.930(b)*, and Maine *§2054-9.B* contain similar language).
>
> *Virginia §46.2-921.1. (ii)…if changing lanes would be unreasonable or unsafe…*

- changing lanes would interfere with any vehicular traffic (North Carolina, Wisconsin);

> *North Carolina §20-157. (2)…if…the approaching vehicle may not change lanes safely and without interfering with any vehicular traffic* (Wisconsin *§346.072* contains similar language).

- safety, road, weather, and/or traffic conditions do not allow (Alaska, North Dakota, Ohio, Oklahoma, South Carolina, Utah, Tennessee); or

> *Tennessee §55-8-132. …if possible with due regard to safety and traffic conditions…*
>
> *Oklahoma §47-11-314. 1…if possible and with due regard to the road, weather, and traffic conditions…*

- a lane change is prohibited by law (Iowa).

> *Iowa, §321.323A. b. If a lane change under paragraph "a" would be impossible, prohibited by law, or unsafe…*

The intent of this qualifying language is to minimize sudden or unsafe lane changes that may result in secondary incidents.

Driver's Responsibility to Slow Down. *Move Over* laws in select States (i.e., Arkansas, Vermont) do not require drivers to slow down or reduce travel speeds. In States that do, provisions related to a driver's responsibility to reduce speeds often are qualified by the ability to change lanes; if a lane change cannot safely be made, the driver must reduce the speed of the vehicle. Legislation in most States requires motorists to generally slow to a "safe" or "reasonable" speed. Other States include more specific speed provisions. Consider the following examples.

State *Move Over* laws require:

- a driver to keep the vehicle under control when approaching or passing an emergency scene (South Carolina);

> *South Carolina §56-5-1538. (F) The driver of a vehicle shall ensure that the vehicle is kept under control when approaching or passing an emergency scene…The exercise of control…is that control possible and necessary by the driver to prevent a collision, to prevent injury to persons or property, and to avoid interference with the performance of emergency duties by emergency personnel. (G) A person…approaching a stationary authorized emergency vehicle…shall proceed with due caution, significantly reduce the speed of the vehicle…*

- a "safe" or "reduced" speed but no suggested speed is provided (Alabama, Alaska, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Michigan, Minnesota, Missouri, Montana, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, Utah, Virginia, Wisconsin);

> *Alaska §28.35.185. (2) …shall slow to a reasonable and prudent speed…*(Maine *§2054-9.B* and Pennsylvania *§3327* contain similar language).
>
> *Indiana §9-21-8-35. …a person who drives an approaching vehicle shall (2) proceeding with due caution, reduce the speed of the vehicle, maintaining a safe speed for road conditions, if changing lanes would be impossible or unsafe* (Illinois *§625.5/11-907*, Kentucky *§189.930(b)*, Missouri *§304.022*, and North Dakota *§39-10-26.2* contain similar language).

> *Minnesota §169.14.3. (a) The driver of any vehicle shall…drive at an appropriate reduced speed when approaching or passing an authorized emergency vehicle stopped with emergency lights flashing on any street or highway…*(Montana *§61-8-346* contains similar language).
>
> *Kansas §8-1530(2). …the driver shall proceed with due caution, reduce the speed of the motor vehicle and maintain a safe speed for the road, weather and traffic conditions* (Michigan *§257.653a*, Ohio *§4511.21.3*, and Oklahoma *§47-11-314* contain similar language).

- a "safe" or "reduced" speed and a suggested speed is provided (West Virginia);

> *West Virginia §17C-14-9a. (2) Proceed with due caution, reduce the speed of the vehicle, maintaining a safe speed not to exceed fifteen miles per hour on any non-divided highway or street and twenty-five miles per hour on any divided highway depending on road conditions, if changing lanes would be impossible or unsafe.*

- a "safe" or "reduced" speed "under the posted speed limit" but no suggested speed reduction is provided (Georgia, Iowa, Nevada); and

> *Georgia §40-6-16. (2) If a lane change under paragraph (1) of this subsection would be impossible, prohibited by law, or unsafe, reduce the speed of the motor vehicle to a reasonable and proper speed for the existing road and traffic conditions, which speed shall be less than the posted speed limit, and be prepared to stop* (Iowa *§321.323A* contains similar language).
>
> *Nevada §484.364. (a) Decrease the speed of his vehicle to a speed that is: (1) Reasonable and proper, pursuant to the criteria set forth in subsection 1 of NRS 484.361; and (2) Less than the posted speed limit, if a speed limit has been posted.*

- a "safe" or "reduced" speed "under the posted speed limit" and a suggested speed reduction is provided (Florida, South Dakota, Texas, Wyoming).

> *Florida §23.316.126. 2. Shall slow to a speed that is 20 miles per hour less than the posted speed limit when the posted speed limit is 25 miles per hour or greater; or travel at 5 miles per hour when the posted speed limit is 20 miles per hour or less, when driving on a two-lane road, except when otherwise directed by a law enforcement officer* (South Dakota *§32-31-6.1* contains similar language).
>
> *Wyoming, §31-5-224. (ii) When driving on a two (2) lane road, shall slow to a speed that is twenty (20) miles per hour less than the posted speed limit, except when otherwise directed by a police officer.*

Again, drivers are able to understand and comply with and law enforcement are able to enforce more explicit laws. Defining required travel speeds as "reasonable and prudent," "reasonable and proper," "appropriate," or "safe" leaves significant room for interpretation by both drivers and law enforcement personnel. In contrast, laws that explicitly define a required travel speed that is not well substantiated may receive added public scrutiny. In West Virginia, for example, the required speeds of 15 miles per hour on any non-divided highway or street and 25 miles per hour on any divided highway may be perceived to be unreasonable and contrary to temporary traffic control principles which are intended to move drivers reasonably, safely, and expeditiously past or around the traffic incident (Manual on Uniform Traffic Control Devices 2003).

Driver Education. Because the effectiveness of *Move Over* laws relies heavily upon driver cooperation, the "Move Over America" partnership and AAA initiated national public information campaigns in an effort to raise awareness of driver responsibilities under these laws. Select States, such as Florida, have also included State-mandated driver education initiatives and enforcement directives as part of their legislation.

> *Florida §316.126. 2 (c) The Department of Highway Safety and Motor Vehicles shall provide an educational awareness campaign informing the motoring public about the Move Over Act. The department shall provide information about the Move Over Act in all newly printed driver's license educational materials after July 1, 2002.*

The effects of recently initiated public information campaigns may not yet be realized. Anecdotally, responders in a number of States have expressed concern over the lack of awareness among drivers regarding *Move Over* laws and the subsequent ability of these laws to enhance responder safety and realize additional associated benefits. This finding suggests that State-mandated driver education initiatives and enforcement directives should be more broadly incorporated into related legislation in an effort to ensure an appropriate level of effectiveness.

Implementation Challenges and Resolutions

Noted implementation challenges or shortcomings when introducing and enacting *Move Over* laws include the following:

- *Move Over* law provisions may not include all traffic incident responder types;
- *Move Over* laws may be difficult to enforce; and
- lane change requirements could pose additional risks.

Each of these challenges or shortcomings is described below, with potential associated strategies for response.

"Emergency Scene" Definition May Not Include All Responder Types. The definition of an "emergency scene" and/or "authorized emergency vehicles" may not include the presence of transportation, towing/recovery, or service patrol personnel and/or vehicles despite their common exposure to danger. Hence, these laws may offer no potential safety enhancement for these responder types. Concurrent laws related to the definition of an "emergency vehicle" (i.e., red, white, and blue vehicle-mounted flashing lights are typically reserved for law enforcement, fire and rescue, and EMS while amber lights are typically reserved for transportation, towing/recovery, or service patrol vehicles) may challenge the ability to expand the *Move Over* law to include the broader set of responders.

> ***Response***. State *Move Over* laws that include transportation, towing/recovery, or service patrol personnel and/or vehicles, as well as emergency responders and/or vehicles under the purview of *Move Over* laws should be considered as "model legislation." These States include Georgia, Indiana, Iowa, Kansas, Kentucky, Michigan, Tennessee, Utah, and Wisconsin. Responder safety-related statistics can be presented as the basis for introducing inclusive original legislation or expanding current legislation to include transportation, towing/recovery, or service patrol personnel and/or vehicles, as well as emergency responders and/or vehicles. Demonstrated, united support from each agency or industry affected can significantly assist in advancing the legislation.

Move Over Laws May Be Difficult to Enforce. The effectiveness of *Move Over* laws is challenged by both a lack of motoring public awareness and limited law enforcement activity resulting from logistical and resource constraints. Only a single State was observed to include mandated driver education initiatives as part of its Move Over legislation. None of the *Move Over* laws observed included requirements for roadside signing to remind drivers of their responsibilities to change lanes and/or reduce speeds. In the event of an incident, on-scene responders are occupied with incident management duties and unable to concurrently consider enforcement of *Move Over* law violators. The authority to enforce the law is limited to enforcement personnel. For minor incidents, on-scene responders may be limited to transportation, towing/recovery, or service patrol personnel; law enforcement personnel may not be on-scene to provide

enforcement capabilities. If the provisions of the law are vaguely defined (i.e., driver shall maintain a "safe" speed or provide as much space as "practical"), the law may be especially difficult to enforce.

> ***Response.*** State *Move Over* laws that include explicit yet reasonable provisions for driver action should be considered as "model legislation." The language "yield right-of-way by moving to a lane that is not adjacent to the authorized emergency vehicle" (Alabama, California, Georgia, Indiana, Iowa, North Dakota, South Carolina, Tennessee, Virginia, and West Virginia) and "reduce speed to 20 miles per hour under the posted speed limit" (Florida, South Dakota, Texas, and Wyoming) is sufficient to support enforcement.
>
> Select law enforcement agencies have established additional "sting" operations to properly enforce their *Move Over* laws. For example, Florida, Georgia, and Missouri routinely assign law enforcement personnel in pairs so that one officer can monitor passing traffic. These targeted enforcement efforts may be combined with other enforcement activities to enhance personnel efficiency. Associated fines and penalties for violating *Move Over* laws vary significantly. Anecdotally, many law enforcement agencies feel that existing fines and penalties are too low to deter violators effectively. As one exception, motorists failing to change lanes in Missouri may face involuntary manslaughter charges. Steeper fines and penalties, combined with an effective public information campaign, may help to encourage compliance.

Requiring Drivers to Change Lanes Could Pose Additional Risks. Concerns have been expressed in regard to *Move Over* law provisions that require a driver to change lanes and/or slow down, citing the potential for sudden, and perhaps unsafe, lane changes or a propensity for slowing vehicle to be struck from behind. In an early version of California *§21809 (SB 800)* first introduced in 2005, the California Highway Patrol expressed concern that the lane change mandate "could create chaotic and dangerous situations at crime and collision scenes on the States freeways." As a result of these concerns, the Governor of California vetoed the bill.

> ***Response***. Continuing with the example provided above, California's *Move Over* law was re-introduced again a year later (SB 1610) with the following qualifying language for changing lanes: "with due regard for safety and traffic conditions, if practicable and not prohibited by law." The revised version of the bill also included a required speed reduction if the driver is prevented from making a lane change. In this instance, CHP noted that the provisions of the bill "will help to deter motorists from reckless driving that endangers the lives of emergency responders." California's *Move Over* law went into effect on July 1, 2007.
>
> Effective State *Move Over* laws should include appropriate qualifying language that:
>
> (1) leaves the decision of whether to change lanes up to the driver based on prevailing traffic and roadway conditions (Alabama, California, Georgia, Indiana, Iowa, North Dakota, South Carolina, Tennessee, Virginia, West Virginia), and
>
> (2) provides an alternative action of reducing speeds if a lane change maneuver cannot be performed safely (Florida, South Dakota, Texas, Wyoming).
>
> This example also emphasizes the need for demonstrated, united support from affected agencies. Law enforcement agencies ultimately enforce *Move Over* laws and as such, are important partners in defining, developing, and enacting related legislation. Concerns related to their ability to enforce *Move Over* laws are often valid. More successful and effective Move Over laws and stronger relations between transportation and law enforcement agencies result when agencies work closely with law enforcement partners to demonstrate the potential benefits related to responder safety and to address their concerns related to enforcement.

DRIVER REMOVAL LAWS

At the time of this investigation, approximately half of all U.S. States possess *Driver Removal* laws that require drivers involved in typically minor incidents to move the vehicles from the travel lanes, exchange information, and report the crash information as required. Fewer States actively publicize or enforce these laws, limiting their overall potential for effectiveness. *Driver Removal* laws consistently promote the minimal obstruction of traffic but vary significantly in the specific provisions defining where, when, and under what conditions these laws apply.

A review of the purpose and intent, model language, observed content trends and anomalies, and implementation challenges and resolutions for *Driver Removal* laws is provided below. As appropriate, excerpts from model law and State Driver Removal legislation are included. Legal citations are included for further follow-up by the reader.

Purpose and Intent

Driver Removal laws aim to expedite removal of damaged or disabled vehicles from the travel lanes to enhance the overall level of safety on the roadway and reduce associated congestion and delay. Drivers remaining in a travel lane put themselves, as well as approaching motorists, at risk. When responders arrive on-scene, they too are at a greater risk in the travel lane; particularly when outside their vehicles because of the threat of being struck by a passing vehicle.

Driver Removal laws also serve to reduce the burden on law enforcement and other first responders. As the levels of congestion build on U.S. roadways, transportation and law enforcement personnel encounter resource challenges and constraints. They must meet increasing traffic incident management demands, in the context of their other duties and responsibilities. Public agencies are challenged to function with ever-increasing constraints on personnel and resources. *Driver Removal* laws – that require drivers to take response action - not only enhances the safety of those involved and of approaching motorists, but also allows transportation and law enforcement personnel to focus on other duties.

Because of the reliance on the motoring public for effectiveness, *Driver Removal* laws are often accompanied by public information campaigns (i.e., public safety announcements, roadside billboards, etc.) and roadside signing that reminds drivers of their responsibilities under the law. Requirements for such activities are seldom included in legislation, however. Select States include related legislation designed to protect drivers against liability resulting from their actions and encourage their cooperation in removing vehicles from the roadway.

South Carolina's Driver Removal law reduced delay by 11 percent, with an associated cost savings of $1,682 per incident.

The benefits resulting from *Driver Removal* laws could be significant. As reported previously, Hamlin, et al. (2007) attributed an 11 percent reduction in incident-related delay to South Carolina's *Driver Removal* law, with an associated per incident cost savings of $1,682, which is significant when considering the number of minor incidents occurring on a daily basis in large metropolitan areas. NHTSA estimates that approximately 66 percent of all police-reported highway crashes are minor incidents and that approximately half of all motor vehicle crashes in the United States go unreported. These unreported crashes are likely minor in nature, involving property damage only. Hamlin, et al. (2007) cited *Driver Removal* law benefits related to the safety of road users and incident response personnel in addition to diminishing the role of accidents on congestion and its associated impacts.

Model Language

As part of the aforementioned *Incident Responders' Safety Model Law*, model *Driver Removal* law language is included in *Section 8* with the intent of defining driver-specific actions that should be taken to minimize the potential for hazard:

> ***Section 8. Avoidance of Lane Blockage – Expedited Removal of Vehicles***
>
> *(a) No person shall stop or park a vehicle in such manner as to impede or render dangerous the use of the roadway by others, except to avoid collision, at the direction of an authorized official, or in the case of a crash or mechanical breakdown.*
>
> *(b) In the event of a crash or mechanical breakdown, the emergency flashing lights of such vehicle shall be activated if the vehicle is equipped with such lights and lights are in working order.*
>
> *(c) If a vehicle stopped in the roadway is movable and its driver is capable of moving it, the driver shall immediately move the vehicle to the shoulder or to a designated area off the highway. A responder to an incident may move a vehicle remaining on the roadway, or require the driver or other person in charge of the vehicle to move it to the shoulder or a designated area off the highway.*

Content Trends and Anomalies

Common to nearly all of the *Driver Removal* laws enacted in each State is the general requirement to minimize traffic obstruction – "*every such stop shall be made without obstructing traffic more than is necessary*" – demonstrating a significant reliance on the *Uniform Vehicle Code* when drafting the original legislation. Despite this commonality, specific provisions defined in each law vary significantly between States. Distinctive provisions contained in *Driver Removal* laws relate to:

- applicable roadway facilities and affected features;
- applicable incident types;
- removal authority;
- appropriate removal locations;
- crash investigation; and
- hold harmless clauses.

Specific examples of commonalities and differences in provisions are provided below. Note that the examples reflect a subset of existing *Driver Removal* laws. Much of the statutory language is consistent among States. Where differences do exist, individual examples are included to reflect a broader set of State laws. In the interest of brevity, few State laws are included in their entirety; language not directly related to Quick Clearance operations is excluded. However, State statute citations are provided if the reader is interested in further researching a cited law.

Applicable Roadway Facility and Affected Feature. *Driver Removal* laws typically are limited to incidents occurring on high-speed, limited access roadways that affect the mainline, median, and ramp areas. Some States have expanded applicability to include shoulders and adjacent areas while others have limited applicability to include only metropolitan areas. Consider the following examples.

State *Driver Removal* laws are typically limited to:

- high-speed, limited access roadways (Arizona, Connecticut, Idaho, Kentucky, Tennessee); or

> *Arizona §28-674. B. This section applies to motor vehicle traffic accidents that occur on controlled access highways and any other highways that are divided into two or more lanes clearly marked for traffic in this state.*
>
> *Connecticut §14-224. Each person operating a motor vehicle who is knowingly involved in an accident on a limited access highway…*
>
> *Idaho §49-1301. (2) For any accident which occurs on a divided, controlled-access highway or interstate highway of the state highway system…*
>
> *Kentucky §189.580. (1)(b) If an accident that occurs on an interstate highway or parkway or any on-ramp or off-ramp thereto…*

- any roadway under State jurisdiction (Georgia, Maryland).

> *Georgia §40-6-275. (b) This Code section shall apply to motor vehicle traffic accidents which occur on the public roads of this state as defined in paragraph (24) of Code Section 32-1-3.*
>
> *Maryland § 21-1407. (a) The driver of a vehicle may not stop, stand, or park the vehicle on any vehicular crossing or highway under the jurisdiction of the Maryland Transportation Authority…*

State *Driver Removal* laws may apply to incidents that occur on the:

- mainline, median, or ramp (Colorado, Kentucky);

> *Kentucky §189.580. (1)(b) If an accident that occurs on an interstate highway or parkway or any on-ramp or off-ramp thereto…*

- mainline, median, shoulder, and adjacent area (Washington); or

> *Washington §46.52.020. (2) (a) The driver of any vehicle involved in an accident…must move the vehicle as soon as possible off the roadway or freeway main lanes, shoulders, medians, and adjacent areas…*
>
> *North Carolina §20-161. (a) No person shall park or leave standing any vehicle…upon the paved or main-traveled portion of any highway or highway bridge…(b) No person shall park or leave standing any vehicle upon the shoulder of a public highway…unless the vehicle can be clearly seen by approaching drivers from a distance of 200 feet in both directions and does not obstruct the normal movement of traffic.*

- mainline, ramp, median, shoulder, or adjacent area in a metropolitan area (Texas).

> *Texas §550.022. (b) If an accident occurs on a main lane, ramp, shoulder, median, or adjacent area of a freeway in a metropolitan area…*

Driver Removal laws that apply to damaged or disabled vehicles on shoulders and adjacent areas offer greater potential safety benefits than those limited to vehicles on the mainline, median, and ramp areas. Vehicles on the shoulder still pose a significant safety risk for responders, involved motorists, and approaching motorists. Moreover, studies indicate that they reduce roadway capacity although no physical blockage of a travel lane is occurring.

Driver Removal laws applicable to metropolitan areas only also limit the potential for safety benefit. Rural travel is characterized by lower traffic densities, higher travel speeds, and longer travel distances. When an incident occurs in a rural area, incident responders generally take longer to reach the scene. In addition, approaching motorists are traveling at high speeds and receive no congestion-related early

warning of a downstream incident. Both conditions lead to increased risk for secondary incidents that may be more severe than those occurring in metropolitan areas. Statewide consistency also simplifies driver understanding and enforcement.

Applicable Incident Types. *Driver Removal* law provisions commonly are limited to incidents involving property damage only or minor injury– incidents involving serious injury or fatality are typically, but not always, excluded from *Driver Removal* law provisions. Some States also exclude incidents that involve hazardous materials. Select States also require that the vehicle is physically moved in a safe manner and under its own power without being towed (i.e., disabled vehicles are excluded from *Driver Removal* law provisions). Consider the following examples.

State *Driver Removal* laws apply if:

- the vehicle is not disabled, can be normally and safely driven, does not require towing, and can be operated under its own power (Arizona, Arkansas, Ohio, Texas);

> *Arizona §28-674C. 2…capable of being normally and safely driven, does not require towing and can be operated under its own power…without further damage or hazard to the motor vehicle, to traffic elements or to the roadway* (Texas *§550.022* contains similar language).
>
> *Arkansas §27-51-1303. (b)…shall not apply to the driver of any vehicle which is disabled…in a manner and to an extent that it is impossible to avoid stopping and temporarily leaving the disabled vehicle…*(Ohio *§4511.66* and North Carolina *§20-161* contain similar language).

- serious physical injury or death is not apparent (Arizona, Georgia, Kentucky, Louisiana, Tennessee);

> *Arizona §28-674. C. If a motor vehicle traffic accident occurs and serious physical injury as defined in section 13-105 or death is not apparent…*
>
> *Georgia §40-6-275. (c) When a motor vehicle traffic accident occurs with no apparent serious personal injury or death…*
>
> *Kentucky §189.580. (1) (b) If an accident…does not involve death, known or visible injury…*

- the crash involves a fatality (i.e., the event of a non-driver fatality does not preclude the driver from moving the vehicle) (Florida).

> *Florida §316.027. Crash involving death or personal injuries. (3)…if a damaged vehicle is obstructing traffic, the driver of the vehicle must make every reasonable effort to move the vehicle or have it moved…*(Florida *§316.061* contains similar language for crashes involving damage to vehicle or property).

- the vehicle is not transporting hazardous materials (Kentucky); or

> *Kentucky §189.580. (1) (b) If an accident…does not involve…the transportation of hazardous material…*

These examples indicate two distinct schools of thought regarding driver removal duties in the context of incident severity. Select States limit the removal of involved vehicles if serious physical injury or death is apparent, suggesting concern for the condition of incident victims (i.e., moving the victims may result in more severe injuries) and recognition of the need for more extensive and careful investigation by law enforcement officers. The *Driver Removal* law in Florida contains no such limitation; allowing for the removal of involved vehicles even if a fatality has occurred in an effort to prevent further injury or death resulting from secondary incidents.

Removal Authority. Distinct from *Authority Removal* laws that are described later in this report- *Driver Removal* laws often specify who has the authority to remove incident-involved vehicles. Typically, removal authority is limited to the driver or a licensed occupant of the involved vehicle but in some instances, removal authority includes any licensed driver at the scene. Consider the following examples.

State *Driver Removal* laws require that the vehicle be moved by:

- the driver (Colorado, Tennessee, Texas, Virginia, Washington);

> *Texas §550.022. (b)…each operator shall move the operator's vehicle as soon as possible…*
>
> *Virginia §46.2-888. If the driver is capable of doing so and the vehicle is movable, the driver may move the vehicle…*

- the driver or any licensed occupant of the vehicle (Arizona, Georgia); or

> *Georgia §40-6-275. (c)…it shall be the duty of the drivers of the motor vehicles involved in such traffic accident, or any other occupant of any such motor vehicle who possesses a valid driver's license, to remove said vehicles from the immediate confines of the roadway…*(Arizona *§28-674* contains similar language).

- any licensed driver (Kentucky, South Carolina).

> *Kentucky §189.580. (1) (b)…the operator shall move the vehicle off the roadway…(3) If the operator of a vehicle is unable to move a vehicle off the roadway…the operator or owner may permit any person who possesses a valid operator's license or proper class of commercial driver's license to move the vehicle…*
>
> *South Carolina §56-5-1220. (B)…the driver of the vehicle shall make every reasonable effort to move any vehicle…The driver or any other person who has moved a motor vehicle to facilitate the flow of traffic as provided in this subsection before the arrival of a law enforcement officer…*

If the driver is unable to move the vehicle alone, he or she must:

- solicit help to move the vehicle (Connecticut, Florida); or

> *Connecticut §14-224. Each person…involved in an accident…shall immediately move or cause his motor vehicle to be moved from the traveled portion of the highway…*
>
> *Florida §316.027. …the driver of the vehicle must make every reasonable effort to move the vehicle or have it moved so as not to obstruct the regular flow of traffic* (Florida *§316.061* contains similar language for crashes involving damage to vehicle or property).

- notify the nearest police authority (New Jersey).

> *New Jersey §39:4-136. In the event that a vehicle is disabled or otherwise unable to proceed while on the roadway of a highway, the driver or person in charge of such vehicle shall immediately, by the quickest means of communication, notify the nearest police authority.*

The driver may be sufficiently unnerved or occupied with other involved parties (i.e., exchanging contact and insurance information) to prevent the expedited removal of obstructing vehicles. Under such circumstances, provisions allowing any licensed driver to move the vehicle to a safe refuge are beneficial.

Removal Location. Select *Driver Removal* laws include provisions for removal location. Typical locations include a median, frontage road, cross street, mainline or ramp shoulder, or crash investigation site. Consider the following examples.

State *Driver Removal* laws require vehicles to be moved:

- only so far as is necessary to prevent obstructing the regular flow of traffic (Missouri, South Carolina, Virginia);

> *South Carolina §56-5-1220. (B)…the driver of the vehicle shall make every reasonable effort to move any vehicle that is capable of being driven safely off the roadway…so as not to block the flow of traffic.*
>
> *Virginia §46.2-888. …the driver may move the vehicle only so far as is necessary to prevent obstructing the regular flow of traffic…*

- to a frontage road, the nearest suitable cross street, or other suitable location (Colorado);

> *Colorado §42-4-1602. (2)…to a frontage road, the nearest suitable cross street, or other suitable location…*

- into a safe refuge on the shoulder, emergency lane, or median or to a place otherwise removed from the roadway (Connecticut, Georgia, Tennessee);

> *Connecticut §14-224. …shall immediately move or cause his motor vehicle to be moved…to an un-traveled area which is adjacent to the accident site…*
>
> *Georgia §40-6-275. (c) remove said vehicles from the immediate confines of the roadway into a safe refuge on the shoulder, emergency lane, or median or to a place otherwise removed from the roadway…*

- to the roadway shoulder, adjacent to the emergency walkway on a bridge, or as otherwise directed by a patrol officer (Maryland);

> *Maryland §21-1407. (a) (4)…the vehicle shall be moved… (i) to the shoulder of the roadway; (ii) adjacent to the emergency walkway on a bridge; or (iii) as otherwise directed by a patrol officer.*

- to a location on an exit ramp shoulder, the frontage road, the nearest suitable cross street, or other suitable location (Washington); or

> *Washington §46.52.020. (2) (a)…must move the vehicle…to a location on an exit ramp shoulder, the frontage road, the nearest suitable cross street, or other suitable location…*

- to a designated crash investigation site (if available), a location on the frontage road, the nearest suitable cross street, or other suitable location (Texas).

> *Texas §550.022. (b)…each operator shall move the operator's vehicle as soon as possible to a designated accident investigation site, if available, a location on the frontage road, the nearest suitable cross street, or other suitable location…*

Obviously, recommended locations more removed from the travel lanes provide a greater level of safety for involved and approaching motorists and responders. Some States however, have included provisions in their *Driver Removal* laws that limit the distance that incident-involved vehicles can be moved from the original site of the incident.

Crash Investigation. Select Driver Removal legislation in various States includes provisions requiring that drivers and/or law enforcement personnel provide proper crash reporting documentation and conduct necessary crash investigation procedures irrespective of vehicle location. Consider the following examples.

State *Driver Removal* laws shall not:

- relieve a driver/police officer of the duty to submit a written accident report (Arizona, Georgia, Kentucky, Texas, Virginia); or

> *Arizona §28-674. G. This section does not relieve a police officer of the duty to submit a written accident report pursuant to this article.*
>
> *Georgia §40-6-275. (e) This Code section shall not abrogate or affect a driver's duty to file any written report which may be required by a local law enforcement agency…nor shall it relieve a police officer of his or her duty to render a report in accordance with law.*
>
> *Virginia §46.2-888. …the movement of the vehicle to prevent the obstruction of traffic shall not relieve the law-enforcement officer of his duty pursuant to §46.2-373.*

- interfere with law enforcement's duty to investigate and detect crime and enforce laws (Idaho).

> *Idaho §49-1301. (5) Nothing herein shall be construed to interfere with the duty of any…police officer to investigate and detect crime and enforce the penal, traffic or highway laws…*

The extent of *Driver Removal* law impacts on law enforcement crash investigation duties is thought to be minimal. *Driver Removal* law provisions typically apply to minor incidents that would not require or receive investigation by law enforcement. In many instances, law enforcement may not even be on-scene. For those incidents that do require investigation, a *Driver Removal* law does not relieve law enforcement of the requirement to investigate an incident. The mandate to move a vehicle under these laws is not necessarily contradictory to the law enforcement's duty to conduct a comprehensive investigation. Numerous examples exist within State laws where the need to perform one action must be weighed against the totality of the duty to provide for public safety. For example, it is important to capture an offender and prevent further societal harm but not if the act of pursuit places the general public in more harm than that of allowing the offender to go free. Similarly, it may be important to investigate a minor accident such as generally indicated by the law, but not if the resulting congestion and potential for more serious secondary crashes outweighs the potential results of the initial investigation.

Hold Harmless Clause. Concurrent legislation or language that protects the driver from liability resulting from their actions (in the absence of gross negligence) or waives at-fault determination regarding the cause of the incident as a result of moving their vehicle is often included with *Driver Removal* laws to encourage drivers to expeditiously move their vehicles. Consider the following examples.

Under State *Driver Removal* laws:

- a driver or any other person who removes the vehicle is not liable or at fault regarding the cause of the crash (Arizona, Georgia, Idaho, Tennessee, Texas, Washington).

> *Arizona §28-674. E. The driver or any other person…is not liable or at fault regarding the cause of the traffic accident solely by reason of moving the motor vehicle…*(Georgia *§40-6-275(d)*, Idaho *§49-1301(b)*, and South Carolina *§56-5-1220(B)* contain similar language).
>
> *Washington §46.52.020. (2) (a)…Moving the vehicle in no way affects fault for an accident. (3)…Under no circumstances shall the rendering of assistance…be evidence of the liability of any driver for such accident.*

Most drivers are reluctant to move their vehicle following a minor incident. They assume or were taught that the involved vehicles must be in their original location for law enforcement officers to properly assess responsibility and for insurance companies to offer damage reimbursement. The protection offered under select *Driver Removal* laws is only effective if drivers are aware of the provisions. As such, public awareness campaigns become extremely important to changing driver behavior.

Implementation Challenges and Resolutions

Noted implementation challenges or shortcomings when introducing and enacting *Driver Removal* laws include the following:

- *Driver Removal* law provisions may be limited to metropolitan areas;
- vehicles on the shoulder are not considered a hazard;
- drivers may be reluctant to move vehicles; and
- law enforcement personnel may be reluctant to have drivers move vehicles.

Each of these challenges or shortcomings is described below, with potential associated strategies for response.

Application May Be Limited to Metropolitan Areas. In some instances, *Driver Removal* laws may be limited to metropolitan areas where they are implemented with the intent reducing incident-related congestion and delay. Potential safety benefits attributable to *Driver Removal* laws – namely the reduced likelihood of secondary incidents involving responders and/or approaching motorists - suggest an equal or potentially greater benefit in non-urban, rural areas. Lower traffic densities, higher travel speeds, and longer travel distances characterize rural travel. When an incident occurs in a rural area, incident responders generally take longer to reach the scene. In addition, approaching motorists often travel at high speeds and receive no congestion-related early warning of a downstream incident. Both conditions lead to increased risk for secondary incidents that may be more severe than those occurring in metropolitan areas.

> ***Response***. A legislative history review of Texas *§550.022* revealed no explanation for the metropolitan area limitation; the language remains unchanged from its original form first introduced as *SB 971* in 1995. During that time, TIM efforts and benefits focused almost exclusively on congestion reduction; safety-related benefits attributable to TIM emerged more recently. This historic focus on congestion and delay reduction may help to explain the attendant focus on metropolitan areas.
>
> To prevent the same legislative shortcoming, State *Driver Removal* laws that exclude the limiting language should be considered as "model legislation." These States include Arizona, Connecticut, Georgia, Idaho, Kentucky, Maryland, and Tennessee. Enforcement-related benefits resulting from statewide consistency can be presented as the basis for introducing inclusive original or expanding current legislation. Statewide consistency also simplifies driver understanding of vehicle removal requirements. Demonstrated, united support from law enforcement and transportation agencies can significantly assist in advancing legislation.

Vehicles on the Shoulder Are Not Considered a Hazard. Affecting both removal initiation and removal location, *Driver Removal* laws often exclude vehicles on the mainline shoulder under the purview of the law (i.e., vehicles on the shoulder are not authorized to be removed) and recommend the mainline shoulder as a "safe" removal location for incident-involved vehicles. Vehicles on the shoulder or median still pose a significant safety risk for responders, involved motorists, and approaching motorists. Studies demonstrate that they do reduce roadway capacity even though no physical blockage of a travel lane is occurring.

Response. State *Driver Removal* laws that include vehicles on the mainline shoulder or median (Washington) and recommend locations further removed from the travel lanes (Colorado, Texas, and Washington) should be considered as "model legislation." *Driver Removal* laws that require drivers to move their vehicle only as far as necessary to prevent obstructing the regular flow of traffic (South Carolina and Virginia) or specifically include the roadway shoulder or median as a recommended relocation site (Georgia, Maryland, Tennessee) are not recommended.

In a five-year study conducted in North Carolina, 1,300 abandoned vehicles were struck, resulting in 47 fatality crashes and over 500 injuries.

Safety-related statistics related to damaged, disabled, or abandoned vehicles on the shoulder or median can be presented as the basis for recommending further removed locations. For example, in 2005 North Carolina completed a five-year study of abandoned vehicle crash involvement found that a total of 1,300 abandoned vehicles were struck, resulting in 47 fatality crashes and over 500 injuries (I-95 Corridor Coalition 2007). In the same year but on a national level, an estimated 500 fatalities were reported by NHTSA resulting from multiple vehicle incidents occurring on the roadway shoulder and median, respectively (300 fatalities on the shoulder and 200 fatalities on the median). Perhaps more compelling than National or State-level statistics, and proven effective in proliferating *Move Over* laws, local examples of responder or motorist tragedy can be cited as a motivating factor in the successful development of Driver Removal legislation with provisions for off-site relocation.

Recent proposed revisions to existing State legislation confirm the merits of off-site relocation. Current legislation in Virginia (*§46.2-888*) requires drivers to "move the vehicle only so far as necessary to prevent obstructing the regular flow of traffic." Proposed revisions as part of *Chapter 737 HB 1302*, approved March 27, 2008, modify the existing legislation as follows:

> *Chapter 737 HB 1302. ...If the driver is capable of safely doing so and the vehicle is movable, the driver may move the vehicle ~~only so far as necessary~~ from the roadway to prevent obstructing the regular flow of traffic...*

Drivers May Be Reluctant to Move Vehicles. Most drivers are reluctant to move their vehicle following a minor incident. They assume that the involved vehicles must be in their original location for law enforcement officers to effectively investigate the crash and properly assess responsibility and for insurance companies to offer damage reimbursement. In fact, insurance companies offer compensation for damage repairs in crashes where vehicles have been moved before an officer arrives on the scene or even when information is simply exchanged between drivers and no police investigation is made.

Response. Because the effectiveness of *Driver Removal* laws is highly dependent upon appropriate driver action, State-mandated driver education initiatives and enforcement directives should be included as part of the legislation. No examples of "model legislation" were uncovered related specifically to *Driver Removal* laws but Florida *§316.126.2(c)* includes similar provisions in their *Move Over* law:

> *Florida §316.126. 2 (c) The Department of Highway Safety and Motor Vehicles shall provide an educational awareness campaign informing the motoring public about the Move Over Act. The department shall provide information about the Move Over Act in all newly printed driver's license educational materials after July 1, 2002.*

Driver Removal laws should include concurrent legislation or language that protects the driver from liability resulting from their actions (in the absence of gross negligence) or waives at-fault determination regarding the cause of the incident as a result of moving their vehicle. State *Driver Removal* laws that should be considered as "model legislation" include Arizona, Georgia, Idaho,

Tennessee, Texas, and Washington. These protections offered to the driver should be an integral focus of any driver education or public awareness campaign.

Demonstrated, united support from the automobile insurance industry – to both develop and promote legislation and to facilitate subsequent driver education efforts - can significantly assist in advancing the legislation and enhancing the ability of enacted laws to enhance responder safety and realize additional associated benefits. Insurance companies stand to benefit from *Driver Removal* laws because of the reduced risk of secondary incidents. A preliminary awareness and education effort targeting the insurance industry may be required. Select large, national automobile insurance companies actively encourage drivers to "leave your vehicles where they are — even if they're blocking traffic" in the event of an injury incident. One reason cited for this is the need for law enforcement investigate the crash: "by leaving your vehicle where it is — even if it snags traffic — law enforcement officers can try to gauge what happened, as well as who might be at fault for the accident." With crash investigation as the basis for discouraging vehicle removal, law enforcement agencies become essential partners in promoting Quick Clearance within and among the automobile insurance industry.

Law Enforcement Personnel May Be Reluctant to Have Drivers Move Vehicles. Law enforcement personnel are required to conduct timely and accurate crash investigations as part of their overall responsibilities. Some law enforcement personnel may be reluctant to have drivers move their vehicles in the event of a crash, believing that it will compromise their ability to effectively investigate the crash and properly assess responsibility.

Response. *Driver Removal* law provisions typically apply to minor incidents that would not require or receive investigation by law enforcement. In many instances, law enforcement may not even be on-scene. As such, *Driver Removal* law impacts on law enforcement crash investigation duties are thought to be minimal.

When crash investigation is warranted, numerous examples exist within State laws where the need to perform one action must be weighed against the duty to provide for public safety. An example was presented previously that described the necessary balance between offender capture and public safety during the act of pursuit. As a second example, consider the authority of law enforcement to exceed regulatory speed limits when responding to a call and their concurrent duty to stop their vehicle at a red traffic signal light, proceeding only with caution and/or to stop their vehicle and remain stopped when approaching a stationary school bus. Similarly, it may be important to investigate a minor accident such as generally indicated by the law, but not if the resulting congestion and potential for more serious secondary crashes outweighs the potential results of the initial investigation.

In fact, law enforcement officers may conduct their investigations when a vehicle has been moved based, in part, on the crash damage "evidence" to the vehicles, debris at the point of the crash, and the testimony of drivers and witnesses. On many freeways, special crash investigation sites have been provided with roadside signs encouraging their use. These sites are usually nearby (but off the freeway), well lit for nighttime use and safety, and may have a telephone or call box to request assistance. Drivers must be informed about these sites and their use. State laws must also allow drivers to "leave the scene" to access these sites without being in violation of the law.

Law enforcement agencies are uniquely qualified to conduct crash investigations, and as such, are important partners in defining, developing, and enacting related legislation. Working with law enforcement agencies to demonstrate the potential benefits related to responder safety and, at the same time, working cooperatively to address their concerns related to crash investigation, will lead to a more successful and effective *Driver Removal* law and stronger relations between transportation and law enforcement agencies. Demonstrated, united support from law enforcement can significantly assist in advancing the legislation.

AUTHORITY REMOVAL LAWS

At the time of this investigation, approximately half of all U.S. States enacted *Authority Removal* laws. In contrast to *Driver Removal* laws, *Authority Removal* laws provide authorization to a pre-designated set of public agencies - generally including State, county, and local law enforcement or State departments of transportation (DOTs) - to remove damaged or disabled vehicles and/or spilled cargo from the roadway that is determined to be a hazard. Driver and authority removal responsibilities are often defined within the same statute: if the driver is unwilling or unable to remove the vehicle or cargo, designated authorities may require or perform removal without consent of the owner. *Authority Removal* laws consistently promote the expedited removal of damaged or disabled vehicles and/or spilled cargo from the roadway that are determined to be a hazard, but vary significantly in the specific provisions defining where, when, and under what conditions these laws apply.

A review of the purpose and intent, model language, observed content trends and anomalies, and implementation challenges and resolutions for *Authority Removal* laws is provided below. As appropriate, excerpts from model law and State Authority Removal legislation are included.

Purpose and Intent

Often, legislators originally enacted *Authority Removal* laws, and associated *Hold Harmless* laws, to ensure adequate accessibility to the roadway infrastructure or appurtenances for transportation agencies when performing roadside construction and maintenance duties and for emergency response vehicles en-route to an emergency. Safety implications of damaged or disabled vehicles and/or spilled cargo on the roadway were of concern only if travel lanes were sufficiently obstructed.

More recently, *Authority Removal* laws have become important strategies for reducing incident-related congestion and delay. Also, the scope of removal authority has expanded to generally include not only obstructions in the travel lanes but also vehicles and/or cargo on the shoulder or in the roadway right-of-way in recognition of the potential safety hazards.

Hence, the primary intent of *Authority Removal* laws has become largely synonymous with that of *Driver Removal* laws - to expedite removal of damaged or disabled vehicles from the travel lanes to enhance the overall level of safety on the roadway and reduce associated congestion and delay.

Model Language

Section 8 of the *Incident Responders' Safety Model Law* also includes model *Authority Removal* law language in addition to the model language for *Driver Removal* laws previously presented. This section provides responders with the authority to move or order the removal of a vehicle from the roadway and provides the authority to a law-enforcement officer or the Incident Commander to remove vehicles from the highway at the owner's expense if the driver is unwilling or unable to do so.

Section 8. Avoidance of Lane Blockage – Expedited Removal of Vehicles

(d) A responder to an incident may move a vehicle remaining on the roadway, or require the driver or other person in charge of the vehicle to move it to the shoulder or a designated area off the highway.

(e) A law-enforcement officer or the incident commander may order the removal of any vehicle remaining on the highway at the owner's expense. The vehicle's location shall be reported to the nearest law-enforcement agency as soon as practicable.

Additional guidance related to *Authority Removal* laws is provided in *Section 5* and *Section 6* of the *Incident Responders' Safety Model Law. Section 5* provides liability protection to responding agencies and their personnel when incident clearance functions are exercised with reasonable care at the direction of the Incident Commander.

Section 5 Liability Protection for Authorized Incident Clearance Functions

(a) Governmental agencies responding to incidents, including but not limited to law enforcement, firefighting, emergency medical services, hazardous materials, transportation agencies and other emergency governmental responders are authorized to exercise the incident clearance functions enumerated in this section. If such functions are exercised with reasonable care and at the direction of the incident commander, those governmental agencies and their personnel and other designated representatives are insulated from liability resulting from such actions taken pursuant to incident clearance, including:

- *Incident detection and verification;*
- *Incident area security and protection;*
- *Rescue of persons from vehicles and hazardous environments;*
- *Emergency medical transportation and care;*
- *Hazardous materials response and containment;*
- *Fire suppression and elimination;*
- *Transportation of vehicle occupants;*
- *Traffic direction and management, and establishment and operation of alternate routes, including but not limited to traffic detours and/or diversion;*
- *Crash investigation;*
- *Dissemination of traveler information;*
- *Incident clearance, including removal of debris, coordination of clearance and repair resources, and temporary roadway repair and facilities restoration;*
- *Removal of vehicles and cargo;*
- *Any other actions reasonably necessary.*

(b) When directed by the incident commander, towing and recovery service providers are authorized to perform the following enumerated functions, and any other actions reasonably necessary to perform those enumerated functions;

- *Removal of vehicles from the incident area;*
- *Protection of property and vehicles;*
- *Removal of debris from the roadway;*
- *Transportation of persons or cargo.*

Section 6 assigns the costs associated with incident removal to the vehicle or cargo owner(s).

Section 6. Compensation for Incident Removal Costs

Notwithstanding any other law or regulation, any agency, person or organization incurring the cost of removing vehicles and/or cargo at an incident, if such removal is authorized by the traffic incident commander, shall have the unqualified right to compensation for the cost of such removal from the owner (or owners) of:

- *the vehicles removed; and/or*
- *the vehicles whose cargo was removed in whole or in part.*

Content Trends and Anomalies

Common to nearly all of the *Authority Removal* laws enacted in each State is the general objective of expedited removal of damaged or disabled vehicles and/or spilled cargo from the roadway that are determined to be a hazard. Despite this commonality, specific provisions defined in each law vary significantly between States irrespective of efforts to encourage uniformity. Distinctive provisions contained in *Authority Removal* laws relate to:

- applicable roadway facilities and affected features;
- applicable incident types;
- the determination of hazard;
- removal authority;
- appropriate removal locations;
- commercial motor vehicle involvement;
- crash investigation;
- post-removal vehicle and/or cargo handling; and
- "hold harmless" clauses.

Specific examples of commonalities and differences in provisions are provided below. In many instances, the same observations described previously for *Driver Removal* laws can be made for *Authority Removal l*aws since related provisions are oftentimes contained within the same statute. Note that the examples provided below reflect a subset of existing *Authority Removal* laws. Much of the statutory language is consistent between States. Where differences do exist, individual examples were included to reflect a broader set of State laws. In the interest of brevity, few State laws are included in their entirety; language not directly related to Quick Clearance operations is excluded.

Applicable Roadway Facility and Affected Features. Similar to *Driver Removal* laws, *Authority Removal* laws are typically limited to incidents occurring on high-speed, limited access roadways and affecting the mainline, median, and ramp areas. Some States have expanded applicability to include also shoulders and adjacent areas. Consider the following examples.

State *Authority Removal* laws are typically limited to:

- high-speed, limited access roadways (Arizona, Georgia, Ohio, Tennessee, Texas); or

> *Arizona §28-674. B…applies to motor vehicle traffic accidents that occur on controlled access highways and any other highways that are divided into two or more lanes…*
>
> *Tennessee §54-16-113. (a)…may immediately remove or cause to be removed any…vehicle, spilled cargo or other personal property from the roadway of a controlled-access highway…*

- freeways or expressways in counties having a population of 500,000 or more (Wisconsin).

> *Wisconsin §349.13. (4) In counties having a population of 500,000 or more whenever any traffic officer finds a vehicle disabled so as to cause a hazard on any portion of the interstate system, limited access highway or any expressway…the county may remove such vehicle…*

State *Authority Removal* laws may apply to crashes that occur:

- anywhere within the highway right-of-way (Colorado, Texas, Virginia);

> *Colorado §42-4-1803. (2)…a motor vehicle, vehicle, cargo, or debris, attended or unattended, standing upon any portion of a highway right-of-way in such a manner as to constitute an obstruction to traffic or proper highway maintenance…*
>
> *Texas § 545.3051. (b) An authority or a law enforcement agency may remove personal property from a roadway or right-of-way if…the property blocks the roadway or endangers public safety.*
>
> *Virginia §46.2-1212.1. A…public safety agencies may, without the consent of the owner or carrier, remove: 1. A vehicle, cargo, or other personal property that has been (i) damaged or spilled within the right-of-way or any portion of a roadway in the state highway system and (ii) is blocking the roadway or may otherwise be endangering public safety…*

- on any highway, bridge or causeway, or tunnel (Nevada, Ohio, Rhode Island); or

> *Ohio §4511.67. Whenever any police officer finds a vehicle unattended upon any highway, bridge, or causeway, or in any tunnel, where such vehicle constitutes an obstruction to traffic, such officer may provide for the removal of such vehicle…*(Rhode Island *§31-21-3* contains similar language).

- on a mainline, shoulder, median, and adjacent area (Washington).

> *Washington §46.52.020. (2) (a) The driver of any vehicle involved in an accident…must move the vehicle as soon as possible off the roadway or freeway main lanes, shoulders, medians, and adjacent areas…(b) A law enforcement officer or representative of the department of transportation may cause a motor vehicle, cargo, or debris to be moved…*

Authority Removal laws that apply to damaged or disabled vehicles anywhere within the highway right-of-way offer the greatest potential for benefit. In this case, law language recognizes that vehicles on the shoulder or median still pose a significant safety risk and reduce roadway capacity although no physical blockage of a travel lane is occurring.

Authority Removal laws applicable only to metropolitan areas (i.e., counties having a population of 500,000 or more) also limit the potential for safety benefit. As noted previously, longer incident response times and the lack of congestion-related early warning of a downstream incident in rural areas often leads to an increased risk for secondary incidents that may be more severe than those occurring in metropolitan areas. Statewide consistency also simplifies driver understanding and enforcement.

Applicable Incident Types. Similar to *Driver Removal* laws, *Authority Removal* law provisions consider incident severity and hazardous material involvement. Unique to *Authority Removal* laws, removal provisions may vary depending on whether the vehicle and/or cargo is attended or unattended (i.e., abandoned). Consider the following examples.

State *Authority Removal* laws apply if:

- a vehicle is disabled (California, Illinois, Iowa, Nevada, New Jersey, New Mexico);

> *California §22654. (c) Any state, county, or city authority charged with the maintenance of any highway may move any vehicle which is disabled or abandoned or which constitutes an obstruction to traffic…*

- serious physical injury or death is apparent, but only after medical assistance, fire supervision, and/or crash investigation has been completed (Arizona, Kentucky, North Carolina, South Carolina, Tennessee);

> *Arizona §28-674. I. The department shall not require or assist in the removal of a motor vehicle that is incapacitated as a result of being involved in a motor vehicle traffic accident if serious physical injury…or death is apparent until a police officer has made the necessary measurements and diagrams required for the initial accident investigation.*
>
> *Kentucky §189.580. (5) (a) In accidents that involve fatalities or known or visible injuries, the removal provisions…shall apply only after all medical assistance, fire supervision, and site investigation have been completed.*
>
> *South Carolina §56-5-1210. (B) Law enforcement officers or authorized employees of the Department of Transportation may move or have removed from the traveled way all disabled vehicles and vehicles involved in an accident and any debris caused by motor vehicle traffic collisions where it can be accomplished safely and may result in the improved safety or traffic flow upon the road; however, where a vehicle has been involved in an accident resulting in great bodily injury or death to a person, the vehicle shall not be moved until it is authorized by the investigating law enforcement officer.*
>
> *Tennessee §54-16-113. (b) (1) Vehicles, cargo or personal property may be removed to any place within the immediate vicinity…; provided, however, that in the event of a motor vehicle accident which results in apparent serious personal injury or death, no removal shall occur until a law enforcement officer determines that adequate information has been obtained for preparation of an accident report* (North Carolina *§20-161(f)* contains similar language).

- cargo does not involve hazardous materials (Kentucky);

> *Kentucky §189.580. (b) The removal provisions of subsection (4) of this section shall not apply if an accident involves, or is believed to involve, a release of hazardous materials.*

- the vehicle and/or cargo is either attended or unattended and constitutes a hazard to traffic (Colorado, Georgia).

> *Colorado § 42-4-1803. (2) Whenever any sheriff…finds a motor vehicle, vehicle, cargo, or debris, attended or unattended, standing upon any portion of a highway right-of-way in such a manner as to constitute an obstruction to traffic or proper highway maintenance…*

Note that unlike most *Driver Removal* law provisions, the occurrence of a serious injury or fatality does not preclude designated authorities from removing damaged or disabled vehicles or spilled cargo from the roadway. Instead, removal activities are qualified to ensure that required medical assistance, fire supervision, and/or crash investigation has been completed.

Regarding unattended or abandoned vehicles within the right-of-way, States that provide separate legislation typically allow abandoned vehicles to remain in the right-of-way in excess of 24 hours and up to 72 hours. Results of a 2004 ITS Deployment Survey (http://www.itsdeployment.its.dot.gov) indicated that 47 percent of participating metropolitan areas allow abandoned vehicles to remain in the right-of-way for more than 24 hours. These laws typically allow law enforcement to expedite removal of abandoned vehicles if deemed a hazard. Given the similar risk for being struck by passing motorists, legislation that does not distinguish removal actions for attended or unattended (abandoned) vehicles – as presented here – are most consistent with Quick Clearance objectives and may simplify both driver understanding and enforcement actions.

Determination of Hazard. Many State *Authority Removal* laws do not explicitly define a "hazard"; instead, determination is left to responder discretion. A second or additional criterion for initiating vehicle and/or cargo removal relates to traffic obstruction. Consider the following examples.

State *Authority Removal* laws apply when vehicle and/or cargo:

- constitute a hazard to traffic (Colorado);

> *Colorado § 42-4-1803. (2)…standing upon any portion of a highway right-of-way in such a manner as to constitute an obstruction to traffic…*

- obstruct traffic (California, Rhode Island, South Dakota); or

> *California §22654. (c)…may move any vehicle which is disabled or abandoned or which constitutes an obstruction to traffic.*
>
> *Rhode Island §31-21-3. …where the vehicle constitutes an obstruction to traffic…*

- constitute a hazard to traffic and/or blocks the roadway (Kentucky, North Carolina, Oregon, Tennessee, Texas, Virginia,);

> *Kentucky §189.580. (4) any vehicle, cargo, or other property which is obstructing the roadway, creating or aggravating an emergency situation, or otherwise endangering public safety.*
>
> *North Carolina §20-161. (f)…any…vehicle, cargo, or other personal property interfering with the regular flow of traffic or which otherwise constitutes a hazard.*
>
> *Tennessee §54-16-113. (a)…if the vehicle, cargo or personal property is creating an obstruction or hazard to traffic because of its position in relation to the highway…*
>
> *Texas §545.3051. (b)…if…the property blocks the roadway or endangers public safety* (Virginia *§46.2-1212.1.A.* contains similar language).

Oregon provides the most explicit and comprehensive description of the conditions that constitute a "hazard" or "obstruction":

> *Oregon §819.120. (1)…a vehicle that is disabled, abandoned, parked or left standing unattended on a road or highway right of way and that is in such a location as to constitute a hazard or obstruction to motor vehicle traffic using the road or highway. (2) As used in this section, a "hazard or obstruction" includes, but is not necessarily limited to: (a) Any vehicle that is parked so that any part of the vehicle extends within the paved portion of the travel lane. (b) Any vehicle that is parked so that any part of the vehicle extends within the highway shoulder or bicycle lane: (A) Of any freeway within the city limits of any city in this state at any time if the vehicle has a gross vehicle weight of 26,000 pounds or less; (B) Of any freeway within the city limits of any city in this state during the hours of 7 a.m. to 9 a.m. and 4 p.m. to 6 p.m. if the vehicle has a gross vehicle weight of more than 26,000 pounds; (C) Of any freeway within 1,000 feet of the area where a freeway exit or entrance ramp meets the freeway; or (D) Of any highway during or into the period between sunset and sunrise if the vehicle presents a clear danger.*

More explicit laws are easier for drivers to understand and for law enforcement to enforce. Vague definitions of "hazard" may lead to public resistance and complaints if drivers feel their vehicles and/or cargo were unnecessarily removed by designated authorities, particularly if the vehicle and/or cargo owners incur a cost for their removal.

Removal Authority. In the observed legislation - and distinct from *Driver Removal* laws described previously in this report - *Authority Removal* laws often specify who has the authority to remove incident-involved vehicles and/or cargo. Approximately half of State *Authority Removal* laws limit vehicle and/or cargo removal authority to law enforcement agencies; the remainder expands authority to also include State departments of transportation (DOTs). Consider the following examples.

State *Authority Removal* laws require that the vehicle and/or cargo be moved by:

- law enforcement personnel (Colorado, Georgia, Idaho, Iowa, Kentucky, Nevada, New Jersey, Oklahoma, Ohio, Pennsylvania, Rhode Island, Virginia, Wisconsin);

> *Colorado §42-4-1803. (2) Whenever any sheriff, under-sheriff, deputy sheriff, police officer, marshal, Colorado state patrol officer, agent of the Colorado bureau of investigation, or agency employee finds a motor vehicle, vehicle, cargo, or debris, attended or unattended, standing upon any portion of a highway right-of-way…*
>
> *Idaho §49-662. (4) Whenever any peace officer finds a vehicle inoperable as a result of an accident and standing upon a highway… (6) A transportation department employee in the exercise of the management, control and maintenance of a highway of the state highway system may assist in the removal from the main-traveled part of the highway cargo or debris caused by a motor vehicle accident when directed by a peace officer.*
>
> *Kentucky §189.580. (4)…a peace officer or safety officer may remove or cause to be removed from the roadway of an interstate highway or parkway or any on-ramp or off-ramp thereto, without consent of the owner or operator, any vehicle, cargo, or other property…*
>
> *Ohio §4511.67. Whenever any police officer finds a vehicle unattended upon any highway, bridge, or causeway, or in any tunnel, where such vehicle constitutes an obstruction to traffic…*(Rhode Island *§31-21-3* contains similar language).
>
> *Pennsylvania §7310. Police officers may remove or direct removal of abandoned or wrecked vehicles and spilled cargo from any roadway…*
>
> *Oklahoma §47-11-1002. B. 1. Law enforcement officers, using reasonable care, may remove from the roadway to the nearest safe place any disabled or damaged vehicle or cargo…*
>
> *Virginia §46.2-1212.1. A…the Department of State Police and/or local law-enforcement agency in conjunction with other public safety agencies may, without the consent of the owner or carrier, remove…vehicle, cargo, or other personal property…*
>
> *Wisconsin §349.13. (4)…whenever any traffic officer finds a vehicle disabled so as to cause a hazard on any portion of the interstate system, limited access highway or any expressway…The removal may be performed by such officer or under the officer's direction or…be contracted …*

- law enforcement personnel or State transportation department (Arizona, California, Florida, Illinois, Missouri, New Mexico, Oregon, South Carolina, Tennessee, Texas, Washington);

> *Arizona §28-674. H. In the exercise of the management, control and maintenance of state highways, the department may require and assist in the removal of the following from the main traveled portion of the roadways in the state highway system…*
>
> *Florida §316.061. (3) Employees or authorized agents of the Department of Transportation, law enforcement with proper jurisdiction, or an expressway authority…may undertake the removal from the main traveled way of roads…*
>
> *Oregon §819.140. (a) When the Department of State Police or the Department of Transportation exercises powers described in this section…*

> *South Carolina §56-5-1210. (B) Law enforcement officers or authorized employees of the Department of Transportation may move or have removed…all disabled vehicles and vehicles involved in an accident and any debris caused by motor vehicle traffic collisions…*
>
> *Tennessee §54-16-113. (a) The department of safety, department of transportation, or local law enforcement agency may immediately remove or cause to be removed any…vehicle, spilled cargo or other personal property from the roadway…*
>
> *Texas §545.3051. (a) (1) "Authority" means (A) a metropolitan rapid transit authority operating under Chapter 451; or (B) a regional transportation authority operating under Chapter 452…(b) An authority or a law enforcement agency may remove personal property from a roadway or right-of-way…*
>
> *Washington §46.52.020. (2) (b) A law enforcement officer or representative of the department of transportation may cause a motor vehicle, cargo, or debris to be moved from the roadway…*

With transportation departments assuming a more active role in operating their roadways and associated traffic incident management activities, *Authority Removal* laws that include transportation personnel in the purview of authority for removing damage or disabled vehicles and spilled cargo is beneficial. With joint authority for vehicle and/or cargo removal, law enforcement personnel may focus on performing duties for which they are uniquely authorized and trained (i.e., citation issuance, crash investigation).

Removal Location. *Authority Removal* laws focus on expediting the removal of damaged or disabled vehicles and spilled cargo from the travel lanes and immediate incident scene to a safe refuge in the same vicinity (e.g., adjacent frontage road). Commonly, *Authority Removal* laws specify a position off the paved or improved roadway but some States are more restrictive in the distance that an incident-involved vehicle or cargo can be moved. Consider the following examples.

State *Authority Removal* laws require vehicles and/or cargo to be moved to:

- any place within the immediate vicinity (Tennessee), the nearest point off the roadway (Pennsylvania) or the nearest place of safety (New Mexico, Oklahoma);

> *Tennessee §54-16-113. (b) (1) Vehicles, cargo or personal property may be removed to any place within the immediate vicinity…*
>
> *Pennsylvania §7310. …may remove or direct removal of abandoned or wrecked vehicles and spilled cargo from any roadway to the nearest point off the roadway where the vehicle or spilled cargo will not interfere with or obstruct traffic…*
>
> *Oklahoma §47-11-1002. B. 1…may remove from the roadway to the nearest safe place any disabled or damaged vehicle or cargo…*

- a position off the paved or improved main-traveled part of the highway (Idaho, Illinois, Iowa, Ohio); or

> *Idaho §49-662. (4)…have the vehicle removed from the scene of the accident to a position off the paved or main-traveled part of the highway…*(Ohio §4511.67 contains similar language)

- an exit ramp shoulder, frontage road, nearest suitable cross street, or other suitable location (Washington).

> *Washington §46.52.020. (2) (a)…must move the vehicle as soon as possible…to a location on an exit ramp shoulder, the frontage road, the nearest suitable cross street, or other suitable location…*

Often distinguished as *Authority Tow* laws because of the greater distance permitted for removal, related legislation allows vehicles and/or cargo to be moved to:

- the nearest garage, service station, or other place of safety (Ohio, Rhode Island); or

> *Ohio §4511.67. ...such officer may provide for the removal of such vehicle to the nearest garage or other place of safety.*
>
> *Rhode Island §31-21-11. ...authorized to remove, or to provide for the removal of, the vehicle to the nearest garage, service station, or other place of safety...*

- a position where parking is permitted or to private/public parking or storage premises (California, Wisconsin).

> *California §22654. (a)...the officer or employee may move the vehicle or require the driver or other person in charge of the vehicle to move it to the nearest available position off the roadway or to the nearest parking location...*
>
> *Wisconsin §349.13. (4)...may remove such vehicle to a position where parking is permitted or to either private or public parking or storage premises.*

Recommended locations further removed from the travel lanes provide a greater level of safety for involved and approaching motorists and responders. States that have included provisions in their *Authority Removal* laws that limit the distance that incident-involved vehicles can be moved from the original site of the incident also limit the potential for safety- and delay-related benefit.

Commercial Motor Vehicle Involvement. Select *Authority Removal* laws include unique provisions related to commercial motor vehicle and/or cargo removal and relocation. Consider the following examples.

If the incident involves a commercial motor vehicle, State *Authority Removal* laws:

- limit the authority's removal activities to authorizing a towing company to remove the commercial motor vehicle to a place of safety (Missouri); or

> *Missouri §304.155. 2...In the event the property creating a traffic hazard is a commercial motor vehicle, as defined in section 302.700, RSMo, the department's authority under this subsection shall be limited to authorizing a towing company to remove the commercial motor vehicle to a place of safety...*

- allow the owner or designated representative of the commercial motor vehicle a reasonable opportunity to contact a towing company of choice (Missouri, Tennessee).

> *Missouri §304.155. 2...the owner of the commercial motor vehicle or the owner's designated representative shall have a reasonable opportunity to contact a towing company of choice.*
>
> *Tennessee §54-16-113. (2) When the property creating an obstruction or hazard to traffic is a motor carrier...the agency causing its removal shall make a reasonable effort to allow the owner of the vehicle to arrange for its removal and shall give due consideration to having the vehicle towed by a licensed towing service capable of safely moving the vehicle in question. The final decision on removal shall rest with the agency causing the removal.*

Regarding the first example, the intended language protects against public agency personnel attempts to remove heavy vehicles that may result in excessive damage to lighter-duty public agency equipment, excessive damage to the involved vehicle and/or cargo, and unnecessary incident clearance delay.

Provisions related to the vehicle/cargo owner's ability to request their towing company of choice may suggest some early resistance to the *Authority Removal* legislation originating from the commercial vehicle industry. Private industry has an inherent salvageable interest in preserving the condition of their vehicles and/or cargo involved in an incident. *Authority Removal* laws may be resisted by private industry if viewed as detrimental to the recovery of vehicles and cargo (i.e., if the removal process would result in significantly more damage to the vehicle and/or cargo). Existing language may reflect a compromise with trucking industry leaders.

Crash Investigation. To enable law enforcement personnel to adequately investigate crashes when warranted, select *Authority Removal* laws include language that delays removal activities until crash investigation procedures are complete. Consider the following examples.

State *Authority Removal* laws require:

- delayed removal activities until after crash investigation has been completed (Arizona, Kentucky, North Carolina, South Carolina, Tennessee)

> *Arizona §28-674. I. The department shall not require or assist in the removal of a motor vehicle that is incapacitated as a result of being involved in a motor vehicle traffic accident if serious physical injury as defined in section 13-105 or death is apparent until a police officer has made the necessary measurements and diagrams required for the initial accident investigation.*
>
> *Kentucky §189.580. (5) (a) In accidents that involve fatalities or known or visible injuries, the removal provisions of subsection (4) of this section shall apply only after all medical assistance, fire supervision, and site investigation have been completed.*
>
> *South Carolina §56-5-1210. (B) Law enforcement officers or authorized employees of the Department of Transportation may move or have removed from the traveled way all disabled vehicles and vehicles involved in an accident and any debris caused by motor vehicle traffic collisions where it can be accomplished safely and may result in the improved safety or traffic flow upon the road; however, where a vehicle has been involved in an accident resulting in great bodily injury or death to a person, the vehicle shall not be moved until it is authorized by the investigating law enforcement officer.*
>
> *Tennessee §54-16-113. (b) (1) Vehicles, cargo or personal property may be removed to any place within the immediate vicinity without any further action or obligation by the department of transportation, department of safety, local law enforcement agency or others acting at the direction of such department or agency; provided, however, that in the event of a motor vehicle accident which results in apparent serious personal injury or death, no removal shall occur until a law enforcement officer determines that adequate information has been obtained for preparation of an accident report* (North Carolina *§20-161(f)* contains similar language).

To preserve the goals of Quick Clearance, these provisions are typically limited to incidents involving serious injury or fatalities.

Post-removal Vehicle and/or Cargo Handling. Oftentimes, authorities are reluctant to assume responsibility for incident-involved vehicles and/or cargo because of costs associated with removing, storing, and disposing of unclaimed property. Select *Authority Removal* laws attempt to assign these costs to the vehicle/cargo owner(s). Other State legislation specifies no cost to the owner(s) for removal services. Consider the following examples.

The removal of vehicles and/or cargo under State *Authority Removal* laws may result in:

- no expense to the owner/operator (Rhode Island);

> *Rhode Island §31-21-11. ...the department of administration is authorized to remove, or to provide for the removal of, the vehicle to the nearest garage, service station, or other place of safety at no expense to the owner or operator of the disabled vehicle for its removal.*

- possible costs incurred by the owner or carrier (Tennessee);

> *Tennessee §54-16-113. (f)...may require the owner and carrier, if any, of the vehicle, spilled cargo or other personal property removed or disposed of under the authority of this section to pay for any costs incurred in the removal and subsequent disposition of such vehicle, spilled cargo or other personal property.*

- costs incurred by the owner or carrier (Oregon, Virginia); or

> *Virginia 46.2-1212.1. C. The owner and carrier, if any, of the vehicle, cargo or personal property removed or disposed of under the authority of this section shall reimburse the Department of Transportation, Department of State Police, Department of Emergency Management, local law-enforcement agency, and local public safety agencies for all costs incurred in the removal and subsequent disposition of such property.*

- "reasonable" costs incurred by the owner or carrier (New Jersey, South Carolina, Texas, Wisconsin).

> *South Carolina §56-5-1210. (B)...The vehicle owner and any driver, or the owner's, driver's, or the at-fault party's insurance company, of a vehicle removed under this subsection, or the owner's, driver's, or the at-fault party's insurance company, shall bear all reasonable costs of removal.*
>
> *Texas §545.3051. (d) The owner and any carrier of personal property removed under this section shall reimburse the authority or law enforcement agency for any reasonable cost of removal and disposition of the property.*
>
> *Wisconsin §349.13. (4) The operator or owner of the vehicle removed shall pay a reasonable charge for moving or towing or any storage involved based upon said ordinance.*

Note that select State *Authority Removal* laws qualify potential costs incurred by the vehicle/cargo owner(s) as "reasonable." The term "reasonable" is not readily defined and may challenge the resolution of disputes arising between vehicle/cargo owner(s) and public agencies intending to recover incident removal costs. Omission of this qualifying term may minimize the ability of vehicle/cargo owners to dispute costs and the need for public agencies to defend costs.

Hold Harmless Clause. Similar to *Driver Removal* laws, concurrent legislation or language that protects responders from liability resulting from their actions (in the absence of gross negligence) is often included with *Authority Removal* laws to encourage responders to expeditiously move damaged or disabled vehicles and/or spilled cargo from the roadway. The same pre-designated agencies authorized to remove damaged or disabled vehicles and/or spilled cargo from the roadway, as well as any qualified responder working under the direction of these agencies, are generally protected under *Hold Harmless* laws. Consider the following examples.

Under State *Authority Removal* laws:

- authorities, or anyone acting under their direction, are not liable for damage (Colorado, Idaho, Oregon, Rhode Island, Washington, Wisconsin);

> *Idaho §49-662. (7) Neither the peace officer nor transportation department employee, nor anyone acting under the direction of the officer is liable for damage to the motor vehicle, cargo or debris caused by reasonable efforts of removal* (Oregon §810.415 and Washington §46.52.020(b) contain similar language).
>
> *Rhode Island §24-8-42. (b) There shall be no liability incurred by any state or local public safety department or agents directed by them whether those agents are public safety personnel or not for damages incurred to the immobilized vehicle(s), its contents or surrounding area caused by the emergency measures employed through the legitimate exercise of the police powers vested in that agency to move the vehicle(s) for the purpose of clearing the lane(s) to remove any threat to public safety.*
>
> *Wisconsin §349.13. (5) (a) No person who removes or stores a vehicle…at the request of a law enforcement officer, and no person who removes or stores a disabled vehicle, accident debris or other object that obstructs the roadway of a freeway or expressway…may incur any civil liability for the act, except for civil liability for failure to exercise reasonable care in the performance of the act or for conduct that is willful, wanton or malicious.*

- absent a showing of gross negligence, authorities or anyone acting under their direction are not liable for damage (Montana, Oklahoma, Pennsylvania, South Carolina, Texas);

> *Montana §61-8-909. A person who renders assistance in an emergency that is life-threatening to the occupant of a wrecked, disabled, or abandoned vehicle or that is creating an immediate hazard on a public roadway or who renders emergency assistance as directed by a law enforcement officer or other emergency responder at the scene of a motor vehicle accident is immune from damages arising from acts or omissions related to the rendering of assistance unless the damages are occasioned by the gross negligence or by the willful or wanton acts or omissions of the person rendering the assistance.*
>
> *Oklahoma §47-11-1002. B. 2. Absent a showing of gross negligence, the law enforcement officer, the employing agency, or any person acting under the direction of the law enforcement officer is not liable for damage to a vehicle or damage or loss to any portion of the contents or cargo of the vehicle when carrying out the provisions of this subsection.*
>
> *Pennsylvania §7310. (c) In carrying out the provisions of this section, no liability shall attach to the police officer or, absent a showing of gross negligence, to any person acting under the direction of the police officer for damage to a vehicle or damage to or loss of any portion of the contents or load or spilled cargo.*
>
> *South Carolina §56-5-1210. (B) The State, its political subdivisions, and its officers and employees are not liable for any damages to vehicles that result from the removal unless the removal was carried out in a reckless or grossly negligent manner.*
>
> *Texas §545.3051. (e)…an authority or a law enforcement agency is not liable for: (1) any damage to personal property removed from a roadway or right-of-way under this section, unless the removal is carried out recklessly or in a grossly negligent manner…*

Alternative to the *Hold Harmless* clauses focused on protecting against liability claims for responder actions taken, some States include *Hold Harmless* clauses that also protect against liability for responder actions not taken:

- authorities shall not be held responsible for any damages or claims that may result from the failure to exercise any authority granted under this section, provided they are acting in good faith (Texas, Virginia)

> *Texas §545.3051. (e)…an authority or a law enforcement agency is not liable for: (2) any damage resulting from the failure to exercise the authority granted by this section.*
>
> *Virginia §46.2-1212.1. B. The Department of Transportation, Department of State Police, Department of Emergency Management, local law-enforcement agency and other local public safety agencies and their officers, employees and agents, shall not be held responsible for any damages or claims that may result from the failure to exercise any authority granted under this section provided they are acting in good faith.*

Approximately, half of all U.S. States that have *Authority Removal* laws in place, have concurrent *Hold Harmless* provisions. When disputes arise, the challenge lies in defining "reasonable efforts," "reasonable care," and even "gross negligence" when characterizing responder vehicle/cargo removal actions.

Implementation Challenges and Resolutions

Noted implementation challenges or shortcomings when introducing and enacting *Authority Removal* laws include the following:

- *Authority Removal* law provisions may be limited to metropolitan areas;
- vehicles on the shoulder are not considered a hazard;
- *Authority Removal* law provisions may be limited to attended vehicles;
- removal authority may not include applicable responder types;
- removal authority may not include applicable vehicle/cargo types; and
- private industry interests in preserving vehicle/cargo integrity may be contrary to *Authority Removal* law provisions.

Each of these challenges or shortcomings is described below, with potential associated strategies for response.

Application may be Limited to Metropolitan Areas. Similar to certain *Driver Removal* laws, *Authority Removal* laws may also be limited to metropolitan areas, implemented with the intent reducing incident-related congestion and delay. Potential safety benefits attributable to *Authority Removal* laws – namely the reduced likelihood of secondary incidents involving responders and/or approaching motorists - suggest an equal or potentially greater benefit in non-urban, rural areas.

> ***Response.*** State *Authority Removal* laws that exclude the limiting language should be considered as "model legislation." These States include Arizona, Georgia, Ohio, Tennessee, and Texas. Enforcement-related benefits resulting from Statewide consistency can be presented as the basis for introducing inclusive original or expanding current legislation. Demonstrated, united support from law enforcement and transportation agencies can significantly assist in advancing the legislation.

Vehicles on the Shoulder are not Considered a Hazard. Affecting both removal initiation and removal location, *Authority Removal* laws often exclude vehicles on the mainline shoulder under the purview of the law (i.e., vehicles on the shoulder are not authorized to be removed) and recommend the mainline shoulder as a "safe" removal location for incident-involved vehicles. Vehicles on the shoulder still pose a

significant safety risk for responders, involved motorists, and approaching motorists. They reduce roadway capacity although no physical blockage of a travel lane is occurring.

Response. State *Authority Removal* laws that explicitly include vehicles on the mainline shoulder or median (Washington) or more broadly apply "anywhere within the highway right-of-way" (Colorado, Texas, and Virginia) and recommend locations further removed from the travel lanes (Washington) should be considered as "model legislation." *Authority Removal* laws that require authorities to move vehicles/cargo "any place within the immediate vicinity" (Tennessee) are not recommended.

In 2005, 500 fatalities were reported nationally as a result of incidents occurring on the roadway shoulder and median.

Again, safety-related statistics related to damaged, disabled, or abandoned vehicles on the shoulder or median can be presented as the basis for recommending further removed locations. For example, in 2005 North Carolina completed a five-year study of abandoned vehicle crash involvement found that a total of 1,300 abandoned vehicles were struck, resulting in 47 fatality crashes and over 500 injuries (I-95 Corridor Coalition 2007). In the same year but on a national level, an estimated 500 fatalities were reported by NHTSA resulting from multiple vehicle incidents occurring on the roadway shoulder and median, respectively (300 fatalities on the shoulder and 200 fatalities on the median). Perhaps more compelling than National or State-level statistics, and proven effective in proliferating *Move Over* laws, local examples of responder or motorist tragedy can be cited as a motivating factor in the successful development of *Authority Removal* legislation with provisions for off-site relocation.

Application may be Limited to Attended Vehicles. Presumably motivated by public resistance to Quick Clearance actions and potential resulting costs incurred for removal, a number of *Authority Removal* laws limit response actions to attended vehicles. Unattended (abandoned) vehicles pose the same safety risk as attended vehicles but - unless they are recognized as a hazard - may be allowed to remain on the shoulder from between 4 to 72 hours under related *Abandoned Vehicle* laws.

Response. State *Authority Removal* laws that allow removal of unattended or abandoned vehicles directly (i.e., the *Authority Removal* law applies to both attended and unattended vehicles) or that allow for their removal based on authority discretion (i.e., "if deemed to be a hazard") and/or traffic obstruction should be considered as "model legislation." Examples include Colorado and Georgia and Kentucky, North Carolina, Oregon, Tennessee, Texas, and Virginia, respectively.

Towing and recovery industry partners – who may be tasked with removing, storing, and disposing of unattended vehicles and/or cargo – are key constituents when developing and enacting related legislation. Working with towing and recovery industry partners to address cooperatively concerns related to public resistance, storage capacity, disposal costs, etc. will lead to a more successful and effective *Authority Removal* law and better relations between transportation, law enforcement, and private industry partners.

Removal Authority May Not Include Applicable Responder Types. Transportation and law enforcement agencies are challenged to meet increasing traffic incident management demands in the context of their other duties and responsibilities. Rapid response to incidents, particularly minor incidents, is often precluded by competing personnel priorities and demands and extended travel times resulting from congested roadways. Joint removal authority for both law enforcement and transportation personnel helps to ensure that the incident can be quickly cleared by the first arriving responder; removal authority reserved for law enforcement personnel only can unnecessarily extend the duration of an incident.

Response. With transportation departments assuming a more active role in operating their roadways and associated traffic incident management activities, *Authority Removal* laws that include transportation personnel in the purview of authority for removing damage or disabled vehicles and

spilled cargo should be considered as "model legislation." These States include Arizona, California, Florida, Illinois, Missouri, New Mexico, Oregon, South Carolina, Tennessee, Texas, and Washington.

Demonstrated, united support from law enforcement and transportation agencies can significantly assist in advancing the legislation. As a result of joint authority for vehicle and/or cargo removal, law enforcement personnel may focus on performing duties for which they are uniquely authorized and trained (i.e., citation issuance, crash investigation).

Removal Authority may not Include Applicable Vehicle/Cargo Types. Affecting both the authority to remove damaged or disabled vehicles and/or spilled cargo and the protection against liability when performing such actions, historical evidence was uncovered that challenges the broader goals of Quick Clearance. Original legislation in Colorado (then *§42-4-1603*, currently *§42-4-1803*) states that: "the Colorado State Patrol, sheriffs, under-sheriffs, police officers, marshals, and agents of the Colorado Bureau of Investigation have the authority to remove motor vehicles from the highway right-of-way." The term "motor vehicle" was defined and later interpreted as "any self-propelled vehicle which is designed primarily for travel on the public highway and which is generally and commonly used to transport persons and property over the public highways…" Under this definition, law enforcement personnel were not authorized to remove non-motorized vehicles, trailers, cargo, or debris associated with an incident.

Response. Continuing with this same example, Colorado legislation has since been modified to overcome the removal and liability limitation contained in the original statute as follows:

> *Colorado § 42-4-1803. (2) Whenever any sheriff, under-sheriff, deputy sheriff, police officer, marshal, Colorado state patrol officer, agent of the Colorado bureau of investigation, or agency employee finds a* ***motor vehicle, vehicle, cargo, or debris****, attended or unattended, standing upon any portion of a highway right-of-way in such a manner as to constitute an obstruction to traffic or proper highway maintenance…*

This revision enhances both the potential for safety- and delay-related benefits attributable to *Authority Removal* laws and the protection against liability afforded by law enforcement personnel acting in good faith to restore the flow of traffic.

Private Industry Interests in Preserving Vehicle/Cargo Integrity. Private industry has an inherent salvageable interest in preserving the condition of their vehicles and/or cargo involved in an incident. *Authority Removal* laws may be resisted by private industry if viewed as detrimental to the recovery of vehicles and cargo (i.e., if the removal process would result in significantly more damage to the vehicle and/or cargo).

Carriers generally prefer to use their own towing companies and to wait for on-scene response from their insurance investigators. Even if the cargo is unsalvageable, anything that may impede proper incident investigation and documentation may threaten the carriers' ability to recover losses through insurance claims. Some insurance companies will not honor claims for vehicles or cargo that have been moved prior to arrival of investigators. As a result, the American Trucking Association (ATA) has a policy against towing without the owner's consent and/or using towers that the owner has not chosen (NTIMC 2006).

Response. In some instances, *Authority Removal* laws reflect a noted compromise with private industry. For example, *Authority Removal* laws in both Missouri and Tennessee allow the owner or designated representative of the commercial motor vehicle a reasonable opportunity to contact a towing company of choice. Where private industry resistance is anticipated, *Authority Removal* laws in each of these States should be considered as "model Legislation."

IMPLEMENTATION STRATEGIES

As mentioned previously, the intent of this report was to better support Quick Clearance Law implementation efforts by: (1) preparing States to respond to questions regarding the necessity of Quick Clearance legislation by documenting common motivations for and impediments to implementation; and (2) identifying examples from existing State *Move Over*, *Driver Removal*, and *Authority Removal* legislation that serve to both support and challenge successful incident management operations.

Through this investigation, two key things were observed to facilitate Quick Clearance Law implementation efforts including:

- carefully crafted statutory content and language that best support Quick Clearance objectives, and
- fostered agency and industry partnerships that provide demonstrated, united support for safe, Quick Clearance objectives and related legislation.

The remainder of this report describes recommended content, language, and associations that may lead to effective implementation of *Move Over*, *Driver Removal* and *Authority Removal* laws. This report concludes with a description of the potential beneficial synergy resulting from combined Quick Clearance Law implementation and describes interim measure to support Quick Clearance objectives prior to statutory enactment.

Carefully Crafted Statutory Content and Language

Although a number of States currently have one or more Quick Clearance Laws in place, observed variability in the existence, wording, and coverage of this legislation challenges transferability between States and may challenge the effectiveness of the law in meeting Quick Clearance objectives related to enhanced safety and congestion relief.

To enhance the potential for Quick Clearance Law effectiveness, recommendations related to statutory content and language for Move Over, Driver Removal, and *Authority Removal* laws are provided below.

***Move Over* Laws.** *Move Over* laws require drivers approaching a scene where emergency responders are present to either change lanes when possible and/or reduce speed.

The most effective *Move Over* laws:

- include transportation maintenance, freeway service patrol, and towing and recovery personnel/vehicles in addition to emergency personnel/vehicles;
- require a driver to change lanes into “a lane not adjacent to that of the authorized vehicle” and/or slow down to “ a speed that is 20 miles per hour less than the posted speed” if changing lanes is “not possible or unsafe under prevailing road, weather, or traffic conditions”; and
- require companion driver education initiatives and reasonable enforcement directives.

***Driver Removal* Laws.** *Driver Removal* laws require that vehicles involved in typically minor traffic incidents - with no apparent physical injury and/or minor property damage - be moved out of the travel lanes to a safe location where drivers can exchange information and/or wait for law enforcement assistance.

The most effective *Driver Removal* laws:

- apply consistently Statewide (not just in the metropolitan areas of a State);

- include incidents occurring on the median, shoulder, and adjacent areas;
- authorize any licensed driver on-scene to remove the vehicles;
- promote off-site vehicle removal locations such as "an exit ramp shoulder, the frontage road, the nearest suitable cross street, a designated crash investigation site, or other suitable location";
- include concurrent *Hold Harmless* legislation or language that protects the driver from liability "in the absence of gross negligence" or waives at-fault determination for the incident as a result of moving their vehicle; and
- require companion driver education initiatives and reasonable enforcement directives.

***Authority Removal* Laws.** *Authority Remova*l laws clarify the authority and responsibility of pre-designated public agencies to clear damaged or disabled vehicles and spilled cargo from the roadway to prevent the occurrence of secondary incidents and to allow normal traffic flow to resume. *Authority Removal* laws typically provide indemnification for these agencies if removal duties are performed in good faith and without gross negligence.

The most effective *Authority Removal* laws:

- apply consistently Statewide (not just in the metropolitan areas of a State);
- include incidents occurring "within the roadway right-of-way" including on the median, shoulder, and adjacent areas;
- apply consistently to both attended and unattended (abandoned) vehicles;
- authorize removal if the vehicle/cargo "constitutes a hazard or obstructs traffic";
- authorize removal by law enforcement or State transportation department personnel;
- authorize removal of the vehicle, as well as any associated appurtenances, cargo, and debris that poses a hazard;
- promote off-site vehicle/cargo removal locations such as "an exit ramp shoulder, the frontage road, the nearest suitable cross street, a designated crash investigation site, or other suitable location";
- exclude exceptions for commercial motor vehicles or - if significant resistance from industry is encountered- allow only "reasonable opportunity for the owner to contact a towing company of choice";
- limit delayed removal activities until after crash investigation has been complete to incidents involving serious injury or fatality;
- directly assign "all costs incurred in the removal and subsequent disposition" of incident-involved vehicles/cargo to the owner; and
- include concurrent *Hold Harmless* legislation or language that protects responders from liability "in the absence of gross negligence" as a result of their actions.

When drafting proposed legislation, one approach is to include a comprehensive list of provisions with the recognition that some provisions may be removed during the bargaining process. Public agency management or administrative personnel should establish early working relationships with legislative officials, and may consider reviewing neighboring State legislations for consistency and gathering data on the effectiveness of such laws once passed to strengthen the justification for such legislation.

Fostered Agency and Industry Partnerships

Agency and industry partnerships that provide demonstrated, united support for safe, Quick Clearance objectives can significantly enhance the ability to advance and enact related legislation.

Key partnerships and constituents in support of *Move Over* legislation include:

- emergency and transportation agencies and the towing and recovery industry to support inclusion of all on-scene incident responders in *Move Over* law provisions;
- law enforcement agencies to alleviate concerns associated with the:
  - enforcement of *Move Over* law provisions and
  - potential for additional safety risks resulting from lane change activity; and
- the automobile insurance industry to facilitate and support driver education initiatives.

Key partnerships and constituents in support of *Driver Removal* legislation include:

- law enforcement agencies to confirm the:
  - enforcement-related benefits resulting from consistently applied legislation (i.e., Statewide),
  - potential for enhanced safety if vehicles and/or cargo are removed from the shoulder/median, and
  - minimal anticipated impact to crash investigation procedures; and
- the automobile insurance industry to facilitate and support driver education initiatives that consistently direct drivers to move their vehicles to a safe refuge.

Key partnerships and constituents in support of *Authority Removal* legislation include:

- emergency and transportation agencies and the towing and recovery industry to support efforts to:
  - assign incident-related removal costs to the vehicle/cargo owner; and
  - expand the scope of *Hold Harmless* clauses to include all on-scene responders
- law enforcement agencies to confirm the:
  - enforcement-related benefits resulting from consistently applied legislation (i.e., Statewide),
  - potential for enhanced safety if vehicles and/or cargo are removed from the shoulder/median,
  - potential for enhanced safety if provisions are applied uniformly to attended and unattended (abandoned) vehicles, and
  - minimal anticipated impact to and from crash investigation procedures; and
- law enforcement and transportation agencies and the commercial vehicle and cargo insurance industry to alleviate industry concerns regarding excess vehicle/cargo loss.

Unless a strong working relationship has already been established among the various constituents, the move towards formal Quick Clearance legislation may require a two-phased approach: (1) educating and achieving consensus among constituents and (2) educating and promoting Quick Clearance to legislators.

Synergy through Combined Quick Clearance Law Implementation

Although each type of legislation considered in this investigation has the potential to offer significant safety- and delay-related benefit, synergistic benefits also may be realized through combined Quick Clearance Law implementation.

For example, the combined implementation of *Driver* and *Authority Removal* laws – either individually or within the same statute – shifts the responsibility of initial incident response to the driver for a majority of incidents but retains vehicle/cargo removal authority by public agencies should the driver be unwilling or unable to comply. This combination alleviates the burden on law enforcement or other first responders to clear the incident if drivers are willing and able to take appropriate action but does not compromise the responsibility of public agencies to ensure a safe and efficient roadway.

Public education efforts for Quick Clearance Laws could be performed concurrently, increasing the overall cost-effectiveness of these efforts. A significant public information campaign is underway with a focus on *Move Over* laws and heightened sensitivity to responder safety. Public service announcements, brochures, websites, etc. could easily address multiple Quick Clearance Laws simultaneously without threat of overload or distraction since each of these laws is related with common objectives related to safe, Quick Clearance.

Interim Measures

Interagency agreements and memoranda of understanding can be an effective interim approach to formalizing Quick Clearance strategies and can provide a basis for pursuing future related Quick Clearance legislation.

A key agreement supporting Quick Clearance efforts is an *"Open Roads Policy"* that binds agencies to Quick Clearance by setting implied or explicit goals for clearing traffic incidents from the roadway. Examples include Florida's "*Open Roads Policy,"* Georgia's *"Open Roads Policy,"* Maryland's "*Removal of Vehicles from Roadway Interagency Agreement,"* New Hampshire's *"Quick Clearance for Safety and Mobility Interagency Memorandum of Understanding,"* Tennessee's *"Urgent Clearance of Highway Incidents and Safety at Incident Scenes Interagency Memorandum of Understanding,"* and Wisconsin's *"Interagency Freeway Incident Clearance Policy Statement."*

By entering into initial interagency agreements and memoranda of understanding, public agencies not only have the opportunity to draft content and language that may eventually be included in Quick Clearance legislation, but to test that content and language in practice to determine whether or not the intended Quick Clearance goals of the agreement are being met. Based on findings, the content and language for proposed Quick Clearance legislation can be modified accordingly.

These initial interagency agreements and memoranda of understanding also serve to confirm consensus for Quick Clearance objectives and strengthen interagency relations, particularly between transportation and law enforcement agencies. A demonstrated, united alliance between key State agencies can greatly enhance the advancement of Quick Clearance legislation and support attainment of Quick Clearance objectives related to safety and congestion relief.

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