The Independent Monitor of Takata and the Coordinated Remedy Program

Update on the State of the Takata Airbag Recalls

December 22, 2020

I, John D. Buretta, as Independent Monitor of Joyson Safety Systems, TK Global LLC ("Takata") and the Coordinated Remedy Program (the "Monitor"), submit this report to describe the current state of the Takata recalls, pursuant to Paragraph 42 of the Consent Order, dated November 3, 2015, issued pursuant to the authority of the National Highway Traffic Safety Administration ("NHTSA") and agreed to by Takata, and as amended as of May 4, 2016, and pursuant to the Coordinated Remedy Order, dated November 3, 2015, as amended by the Third Amended Coordinated Remedy Order, dated December 9, 2016 (the "ACRO").

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Takata Recalls Key Performance Indicators: 2016-2020

50 MILLION airbags repaired or accounted for

98% of High Risk Do Not Drive vehicles repaired or accounted for

DO NOT DRIVE

1,300 unique communications developed by affected vehicle manufacturers for vehicle owners

79% completion percentage for mature campaigns

18 state DMVs enabled 6.5 million letters to be sent

At least **19,000** franchised dealers have completed Takata recall repairs

Nearly **60,000** vehicles with open Takata Recalls identified through Airbagrecall.com

11 collaborative Takata recalls summits involving all affected vehicle manufacturers

I. INTRODUCTION

The Takata airbag inflator recalls are the largest and most complex vehicle recalls in U.S. history, affecting an estimated 67 million defective airbag inflators in the United States across nineteen vehicle manufacturers.[1] To date, confirmed ruptures of Takata airbag inflators may have caused over 400 injuries and 18 fatalities in the United States. The two latest fatalities occurred from accidents just this past August and September, both in Arizona, and are sobering reminders of the danger that defective Takata airbags pose.

In December 2015, when the Monitorship commenced, many vehicle manufacturers affected by the Takata recalls administered recalls to comply with the minimum legislative and statutory requirements but had not considered recall acceleration strategies specific to the Takata recalls. While some of the affected vehicle manufacturers had occasionally used multi-channel messaging, many had not fully investigated the potential of alternative communication channels such as email, phone calls, text messaging and digital marketing to notify vehicle owners of the Takata recall. Nor were they generally in the practice of frequently refreshing and expanding data sources used to identify vehicle owner contact information, or developing robust data strategies to inform and maximize outreach activities. Franchised dealers were considered essential for completion of recall repairs but were not effectively engaged regarding data or outreach strategies. Third-party stakeholders were considered partners to the industry but were also not specifically engaged to assist with data or outreach strategies for recalls.

Over the course of the Monitorship, the affected vehicle manufacturers developed many innovative strategies to accelerate Takata recall completion percentages that had generally not been used in prior recalls. To date, as a result of these strategies, approximately 50 million defective Takata airbag inflators have been repaired or otherwise accounted for before they could cause harm. Many vehicle manufacturers have replaced traditional recall administration practices and standard operating procedures with advanced data analytics and proactive recall engagement to locate affected consumers and motivate them to repair defective Takata airbag inflators. Another fundamental engine of this transformation has been the first-of-its-kind public and private partnership between NHTSA, the Monitor, and affected vehicle manufacturers, which has recently expanded even further to include state Departments of Motor Vehicles, local governments and other third-party stakeholders with an interest in vehicle safety and a commitment to collaboration.

As a testament to the joint efforts of all stakeholders involved, completion percentages for the Takata recalls have far outpaced those for other automotive recalls of older vehicles. As of today, the completion percentage across Priority Groups 1-10[2] is 79%—a

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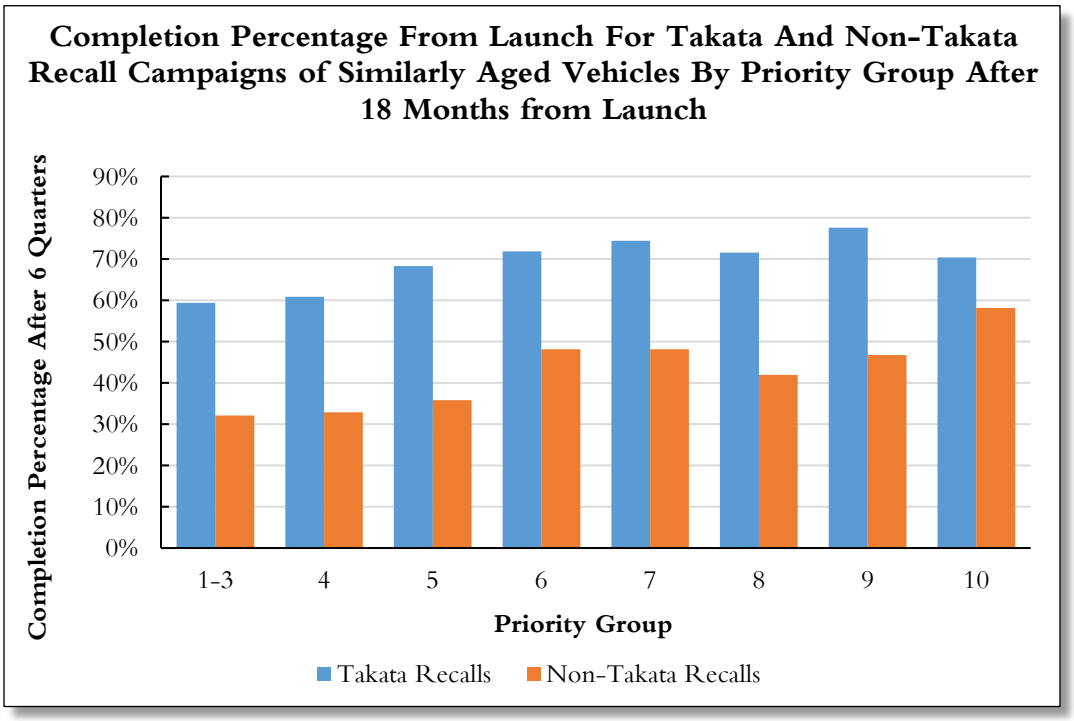
[1] This figure includes approximately 6 million General Motors vehicles that NHTSA determined (on November 23, 2020) must be included in the Takata recalls after considering petitions for inconsequential non-compliance submitted by General Motors. Completion percentages used throughout the report do not include these vehicles as the recall campaigns have not yet launched.

[2] There are 12 priority groups in total in the Takata Recalls, organized according to the acuteness of the risk associated with each category of vehicle. Vehicles included in Priority Groups 11 and 12 have generally not been under recall as long as vehicles in other priority groups have, but were launched by March 31 and September 30, 2020, respectively, which were the deadlines mandated in the Third Amendment to the Coordinated Remedy Order.

historically high completion percentage for a vehicle recall of this size and complexity, especially in view of the age of the vehicles involved.

Table 1 below compares completion percentages after 18 months from launch for Takata and non-Takata recall campaigns. The non-Takata comparison group includes recall campaigns targeting similarly aged vehicles to the vehicles within each Takata priority group. While the analysis is only limited to 18 months from the launch of the recalls, due to that being the regulatory reporting requirement, completion percentages in the Takata campaigns have continued to increase. For example, completion percentages for Priority Groups 1-3 now exceed 80%. Even restricting the analysis to this limited duration, Takata recall campaigns exceed comparable recall campaigns by 120% to 200%.

Table 1



Though not yet complete, the Takata recalls stand apart from other automotive recalls both in terms of the strategic approaches of affected vehicle manufacturers and the completion percentages achieved. They will leave a legacy of industry collaboration and strategic problem solving to improve vehicle safety. Compared to the data strategies, communication techniques, third-party engagement and strategic partnerships developed in the Takata recalls, prior recalls of older vehicles were much less sophisticated. Affected vehicle manufacturers can capitalize on knowledge and experience accumulated in the Takata recalls to save vehicle owners from severe injury and death resulting from other defective recalled components.

II. DEVELOPMENT OF INNOVATIVE RECALL STRATEGIES

Together with NHTSA and the Monitor Team, many affected vehicle manufacturers have implemented a number of recall programs which have never been used before in automotive recalls. These programs identify the correct vehicle owner, communicate the importance of completing the repair, overcome owner inconvenience, engage with franchised dealers and partner with relevant third-party stakeholders. Table 2 below compares the affected vehicle manufacturers' engagement with the Monitor's recommendations at the beginning and end of the Monitorship.

Table 2

Recall Engagement Strategy	Affected Vehicle Manufacturer Engagement in 2016	Affected Vehicle Manufacturer Engagement in 2020
Use multiple sources of vehicle and owner information that is updated frequently	Most affected vehicle manufacturers relied solely on registration-based records without regular or frequent updates.	Most affected vehicle manufacturers use multiple sources of vehicle and owner information that is frequently updated (monthly or quarterly).
Use simple and concise terms to explain the risks of the defect and the repair process	Most affected vehicle manufacturers used communications that used technical and complex language to describe the defect.	Most affected vehicle manufacturers explain the defect using simple and concise language based on best practices developed from research and feedback from vehicle owners.
Send frequent multi-channel outreach communications	Most affected vehicle manufacturers primarily relied on only the U.S. mail to infrequently send outreach to vehicle owners regarding vehicle safety recalls.	Affected vehicle manufactures conduct Takata recalls outreach at least monthly using a variety of messaging channels including certified mail, first class mail, postcards, email, phone calls and social media.
Use multiple languages	Most affected vehicle manufacturers used English-only communications.	Most affected manufacturers use English and Spanish communications and other languages, as appropriate.
Escalate the risk and urgency in communications	Most affected vehicle manufacturers did not clearly convey the urgent risks associated with the Takata recalls.	Most affected manufactures use language and imagery to convey the urgency and risk of the Takata recalls. Some manufacturers have shared victim images and stories to further escalate the message of risk and urgency.

Recall Engagement Strategy	Affected Vehicle Manufacturer Engagement in 2016	Affected Vehicle Manufacturer Engagement in 2020
Prominently feature available recall repair accommodations in communications	Most affected vehicle manufacturers did not proactively communicate the availability of repair accommodations to reduce the inconvenience of the repair process for vehicle owners.	Most affected vehicle manufacturers communicate that free accommodations may be available, including loaner cars, rental cars, shuttle services, concierge services, towing and mobile repair. Some manufacturers have developed specific messaging about the availability of innovative accommodations such as mobile repair.
Measure and analyze the results of outreach	Most affected vehicle manufacturers did not conduct recall outreach in a manner that supported efficient analysis of its impact or effectiveness.	Most affected vehicle manufacturers measure the impact and effectiveness of outreach initiatives. Some manufacturers further analyze the effectiveness across different vehicle segments.
Ensure franchised dealers are both recognized and held accountable for outreach and repairs	Most affected vehicle manufacturers used antiquated methods to assign vehicles to franchised dealers, if at all, and did not have structured programs to measure, analyze and improve dealer performance in the Takata recalls.	Most affected vehicle manufacturers assign vehicles to franchised dealers based, in part, on address proximity. Most also measure and review Takata recalls Key Performance Indicators with dealers. Some manufacturers use mystery shopping programs to ensure franchised dealers offer efficient scheduling and owner accommodations for Takata recall repairs.
Provide franchised dealers with tools such as vehicle owner contact information and outreach templates	Most affected vehicle manufacturers did not provide vehicle owner contact information, outreach templates or other vehicle owner communication tools to franchised dealers to help facilitate Takata recalls outreach.	Most affected vehicle manufacturers provide franchised dealers with vehicle owner contact information and other Takata recalls outreach tools such as messaging templates, repair event kits and lists of local third-party stakeholders.
Create franchised dealer incentives to encourage specific franchised dealer strategies	Most affected vehicle manufacturers did not incentivize franchised dealers to participate in enhanced Takata recall completion programs such as offering vehicle owner repair accommodations or engaging with local third parties.	Many affected vehicle manufacturers use additional dealer incentives to encourage dealers to participate in outreach programs and repair events, to offer repair accommodations, and to engage with local third parties for the Takata recalls.
Collect and share franchised dealer best practices for repair activities and outreach	Most affected vehicle manufacturers did not collect and share franchised dealer best practices relating to vehicle owner outreach, capacity limitations, repair accommodation or third-party engagement.	Many affected vehicle manufacturers collect and share franchised dealer best practices for the Takata recalls. Some manufacturers are developing targeted franchised dealer engagement strategies that consider the strengths and weaknesses of the dealers.

Recall Engagement Strategy	Affected Vehicle Manufacturer Engagement in 2016	Affected Vehicle Manufacturer Engagement in 2020
Engagement with third-party stakeholders	Most affected vehicle manufactures did not engage with state DMVs, independent repair facilities (IRF), vehicle auctions, independent dealers or insurers regarding recall repairs.	Most affected vehicle manufacturers have participated in initiatives involving, or otherwise engaged with, state Department of Motor Vehicles (DMVs), Independent Repair Facilities (IRFs), vehicle auctions, independent dealers and insurers for the Takata recalls. The initiatives include letter mailing, vehicle owner notification platforms or processes, and on-site recall repair.

In considering the effectiveness of the strategies implemented, it is important to note that no single recall enhancement program exists in a vacuum. Rather, the successes of the Takata recalls to date have been due to the deployment of a comprehensive recall acceleration strategy that has incorporated various interrelated approaches. Thus, it has not been any single strategy, but the combination of these strategies to accelerate repairs, that has been a major driver behind the historically high completion percentages achieved during the course of these recalls.

Understanding Vehicle Owner Data

In the Takata recalls, after the campaigns reached 60% completion, identifying the correct affected vehicle owners and locating accurate contact information for them have proven to be among the most difficult hurdles for affected vehicle manufacturers to overcome, particularly in cases involving older vehicles. This phenomenon is likely not unique to the Takata recalls, and may be present in all recalls of older vehicles. This is due to a number of features of the older vehicle population that may affect data integrity, including the greater frequency of owner turnover, the higher rate of vehicle owner mobility (*i.e.* moving between addresses), and the lower likelihood that the owner visits franchised dealers. However, prior to the Takata recalls, the affected manufacturers had not typically engaged in the level of data analysis that has been used in the Takata recalls. In fact, most other recalls of similarly aged vehicles do not even realize a 60% completion percentage.

At the beginning of the Monitorship, many affected vehicle manufacturers for the Takata recalls used owner contact information that was typically sourced solely from vehicle registration records. In many instances, affected vehicle manufacturers did not frequently update these records to reflect vehicle ownership changes or changes of address of the same owner. Moreover, there were instances in which a vehicle owner provided more than one address during the registration process, but the affected vehicle manufacturer either did not receive or use the alternate address for conducting outreach.

Through refreshing sources of owner contact information and analyzing the changes in vehicle owner information, the affected vehicle manufacturers have learned that, for older vehicles, between 20% and 30% of unrepaired vehicle ownership records change over a one-year period. As of the date of this report, most of the affected vehicle manufacturers refresh

their registration-based owner information at least quarterly, with most manufacturers refreshing it monthly. Some manufacturers have developed models to update owner information weekly.

However, even frequently refreshed registration-based information has been found by both the affected vehicle manufacturers and the Monitor Team to be inaccurate for approximately half of unrepaired vehicles once completion percentages of 60% or more are reached, particularly for older vehicles. Affected vehicle manufacturers have recently identified and used multiple sources of owner information, including DMV and non-DMV sources, to identify as many potential addresses as possible for vehicle owners to better pinpoint outreach. The non-DMV information is typically aggregated from independent repair facilities, background searches, utility bills, auto clubs, auto parts stores and insurance companies. In Monitor Team canvassing pilots, non-DMV-based owner data was used when registration-based information proved to be incorrect. In these pilots, supplemental (*i.e.*, non-DMV) data sources identified the correct vehicle owner up to 45% of the time on subsequent canvass attempts.

Additional sources of vehicle data, such as independent vehicle service records (which include the date and location of service), license plate sightings, vehicle auctions, used vehicle listings and salvage yards, have been used to locate unrepaired vehicles.

The affected vehicle manufacturers have also used additional sources of information to identify personal attributes of vehicle owners such as vehicle owner age, language spoken, income and other demographic factors. These attributes have been used to tailor outreach content and test the efficacy of recall-related communications to different owner groups.

Frequent, Multi-Channel Communications

At the beginning of the Monitorship, there was inconsistency in the frequency of communications sent by affected vehicle manufacturers to owners regarding Takata recalls. There was also inconsistency in the channels used to send those communications and in the data sources used to identify recipients. Moreover, English-only communications were common, and some affected vehicle manufacturers used language that de-emphasized the risk of the Takata recalls or used confusing messaging, which created the potential for misunderstanding among vehicle owners. Many manufacturers relied primarily on communications sent via U.S. Mail and infrequently (three to six months) sent renotifications to vehicle owners.

To better understand effective outreach techniques, the Monitor Team, in coordination with NHTSA, conducted independent research through focus groups, in-depth interviews and quantitative surveys which identified vehicle owners' perceptions of the Takata recalls, and any barriers to completion. This research was regularly shared with the affected vehicle manufacturers to encourage the development of new strategies for outreach.

Following the Third Amendment to the Coordinated Remedy Order ("ACRO"), which included Coordinated Communication Recommendations ("CCRs"), affected vehicle

manufacturers adopted the use of frequent, multi-channel communications. Table 3 below summarizes the types of enhanced outreach developed for the Takata recalls.[3]

Table 3

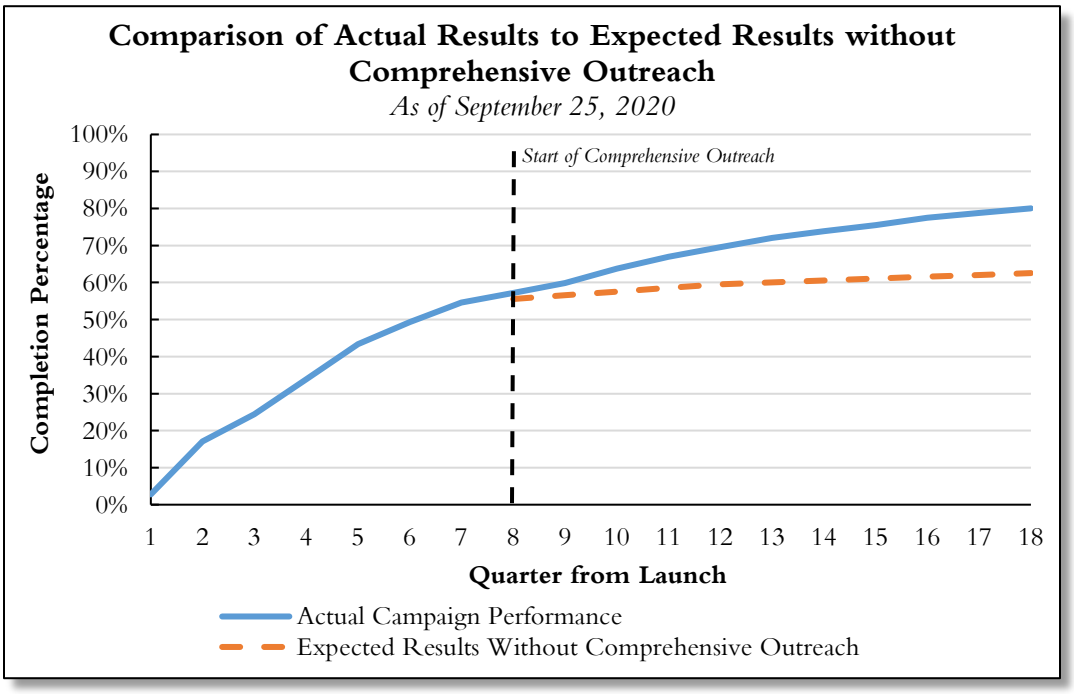
Enhanced Outreach Strategy	Description
Frequent, Multi-Channel Outreach	Send outreach frequently using multi-channel communications such as letters, postcards, emails, social media, phone calls and text messages. Using multiple means of communication on a frequent basis increases the likelihood of convincing the vehicle owner to complete the repair.
Variety of Images	Include a variety of images in outreach to capture the attention of vehicle owners. As a further escalation strategy, use graphic images to depict the risk associated with failing to complete the repair.
Language Translations	Create content in multiple languages or tailor content to the preferred language of the recipient to ensure that vehicle owners can read and understand the recall notification and ensure that the communication is not discarded.
Certified Mail	Recall notifications sent through first class mail can be perceived as "important" by the vehicle owner. First class mail can also allow vehicle manufacturers to identify incorrect addresses through returned mail.
Dedicated Case Handlers	Adopt a case handler program to personalize outreach communications. Case handlers are assigned unrepaired vehicles and are responsible for making sure the repair is completed. Case handlers conduct vehicle owner research using non-traditional data sources to obtain additional vehicle owner contact information (including neighbors and relatives), make numerous personalized calls and maintain consistent communication with the vehicle owner, offer available accommodations to overcome inconveniences, schedule repair appointments and make follow-up calls before repair appointments or after if repair appointments are missed.

[3] Many affected vehicle manufacturers suspended Takata recall outreach in late March and throughout April 2020 due to COVID-19 but resumed recall outreach in May 2020.

Enhanced Outreach Strategy	Description
Changing the Messenger	Notify affected vehicle owners about a recall through an alternate source, other than the vehicle manufacturer. Recall notifications can be reinforced through third parties such as state DMVs, insurance companies and other trusted local sources within a community. Vehicle owners can also be notified about the recall through in-person canvassing.
Cash Incentives	Offer cash incentives if recall repairs are completed over a specific time period. Advertise the incentive offer in outreach communications to bring awareness and motivate the affected vehicle owners.
Owner Accommodations	Advertise the availability of free services that minimize repair inconvenience, such as mobile repair, loaner vehicles, extended dealer service hours, towing and vehicle pick-up/drop-off service.

Many of the affected vehicle manufacturers in the Takata recalls did not initially incorporate comprehensive outreach strategies, such as conducting frequent multi-channel outreach, using an assortment of messages and refreshing vehicle owner data. These strategies were commonly added approximately one to two years after the commencement of the Monitorship. Table 4 below shows the completion percentages that would have reasonably been expected based on completion percentages for recalls of older vehicles prior to the Takata recalls, as well as certain of the Takata recalls for which individual affected vehicle manufacturers did not initially implement comprehensive outreach strategies. Those campaigns typically plateau at a completion percentage of approximately 60%. The implementation of comprehensive outreach in the Takata recalls, which included most of the elements described in Table 3 above, resulted in higher completion percentages than would have been expected had the campaign continued without the inclusion of additional outreach strategies.

Table 4



Mobile Repair

At the beginning of the Monitorship, many affected vehicle manufacturers did not consider the inconvenience of recall repairs when developing programs for the completion of their Takata recalls. Research conducted by both the affected vehicle manufacturers and the Monitor Team from 2016 to 2018 and shared at Takata Summits identified vehicle owner inconvenience associated with the recall repair process as one of the main barriers to achieving higher completion percentages. Such inconveniences included: the inability to be without a vehicle, distance to dealer being too far, the need to use the affected vehicle for work, wait times being too long and a general lack of time to complete the recall repair. For example, half of survey respondents (those with unrepaired Takata recalls) were only willing to travel ten miles or

less to a dealer for recall repairs and 38% were only willing to wait for two hours or less to complete the recall.

Vehicle owners also responded that accommodations such as free loaner vehicles, guaranteed short repair times, mobile repair, dealership incentives and convenient dealership repair hours would assist in overcoming the inconvenience associated with completing a recall repair. While several of these accommodations have been made available to vehicle owners, most of the affected vehicle manufacturers have not yet prioritized the availability of accommodations for vehicle owners or appropriately scaled such offerings. These accommodations are generally left to the discretion of local dealers, and affected vehicle manufacturers have not always tracked or analyzed when and where accommodations have been widely used. Because affected vehicle manufacturers do not always know if a franchised dealer supports a particular accommodation, the advertisement of such services has generally been vague and nonspecific as to what accommodations are available. COVID-19 has heightened the need for recall repair accommodations as many owners may not be comfortable waiting at dealerships for repairs to be completed.

Preference for Mobile Repair

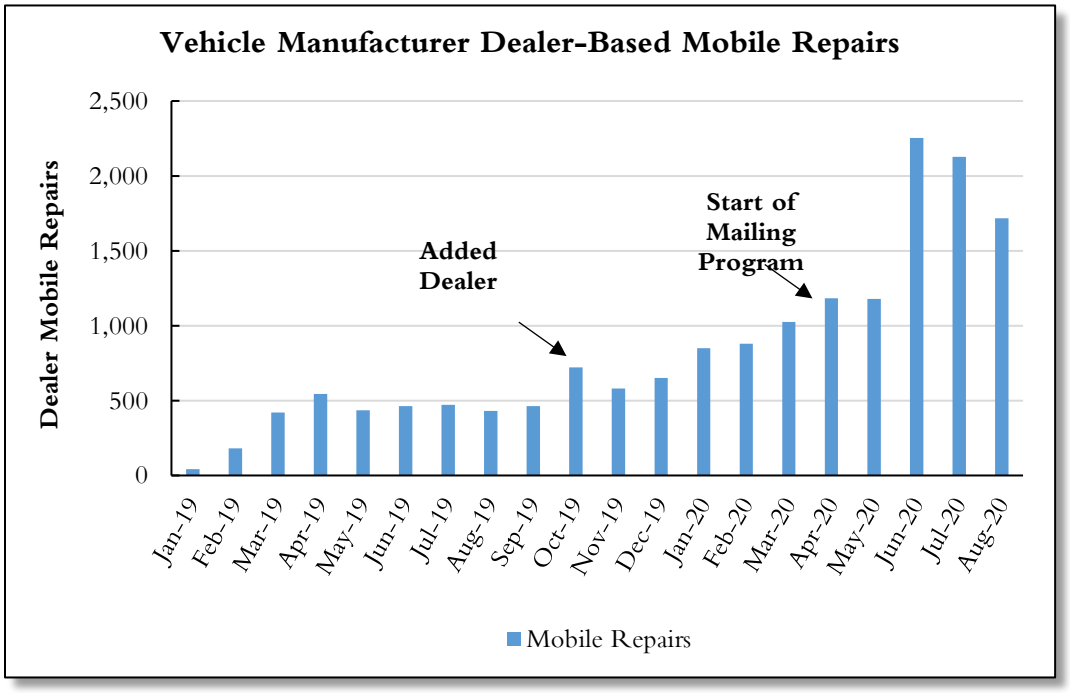
Research has consistently shown that vehicle owners value the availability of loaner vehicles, guaranteed short repair times and mobile repair—having the Takata recall repair performed at an owner's residence, place of business or other convenient location outside of a dealership. When given the choice of an accommodation for completing a repair, mobile repair is most commonly preferred by vehicle owners. For example, in canvassing pilots, mobile repair accounted for 75% of the completed repairs when available, making it far and away vehicle owners' top choice among accommodations. By eliminating a number of the inconveniences that vehicle owners have cited as standing in the way of completing the repair, mobile repair has been, and likely will continue to be, an effective means of driving progress within the unrepaired population.

Mobile repair has taken two forms in the Takata recalls. The first is third-party mobile repair, where dealers outsource the repair to a third-party contractor. The second is dealer-based mobile repair, where a dealer technician performs the repair at a location of a customer's choosing. Both forms of mobile repair have proven effective in increasing recall repairs in the Takata recalls. However, third-party mobile repair has not been effectively scaled by any of the affected vehicle manufacturers due to the geographic and infrastructure-related limitations of any particular vendor. Additionally, partnering with numerous regional or local vendors across the country presents significant administrative challenges for the affected vehicle manufacturers.

The preexisting network of franchised dealers across the country creates a foundation for effective national roll-out of the program. To date, two affected vehicle manufacturers have been successful at scaling dealer-based mobile repair. Both manufacturers have identified the need for economic alignment with franchised dealers on costs of providing this convenience.

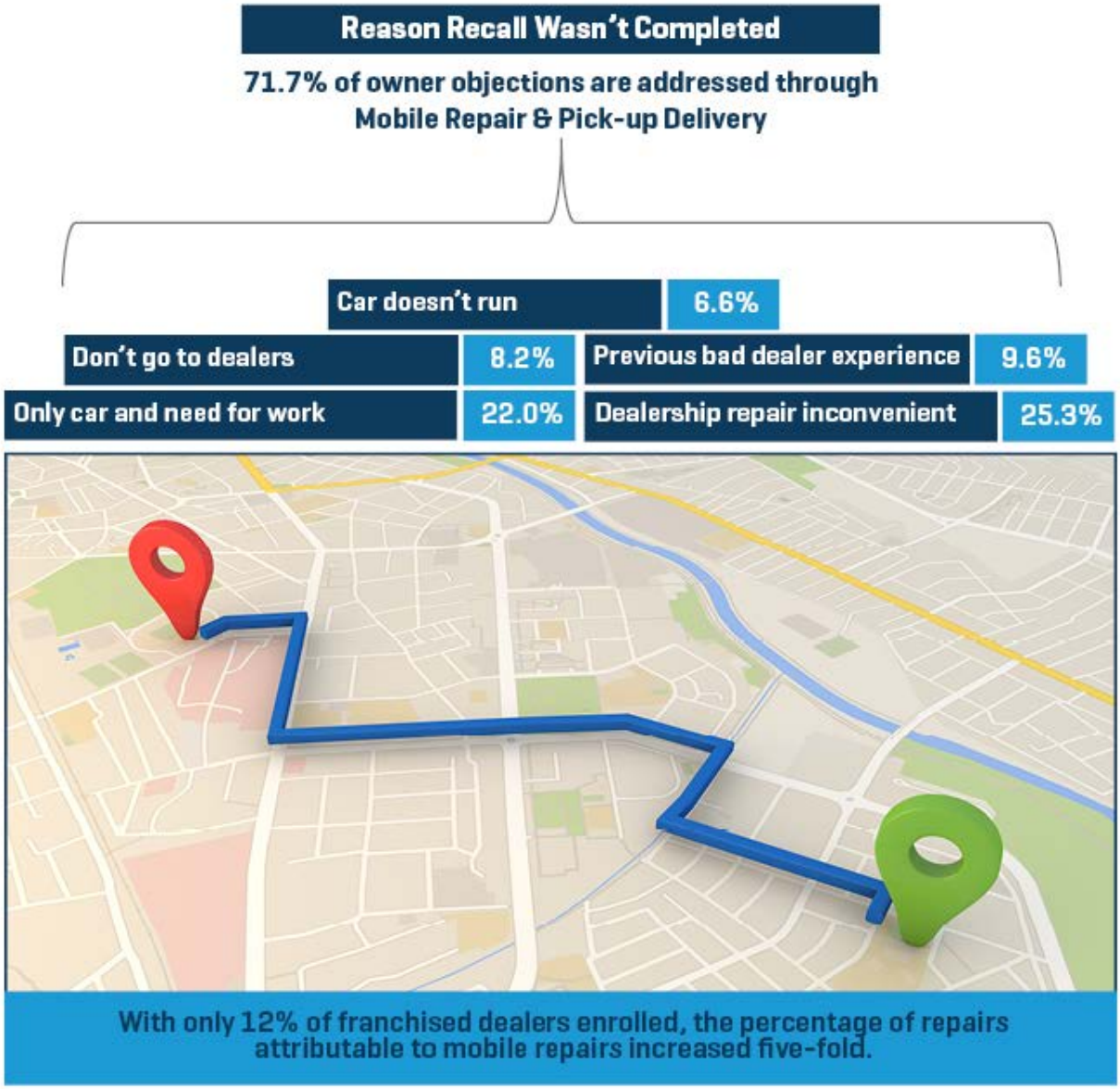
Clearly communicating that mobile repair is available and what it entails is paramount to its success. For example, Table 5 below shows the increase in incremental mobile repairs for a particular manufacturer after the manufacturer commenced outreach that clearly communicated its availability to vehicle owners and increased the mobile repair allowances provided to dealers.

Table 5



This particular manufacturer also surveyed vehicle owners when a mobile repair was completed to understand why the vehicle owner had waited so long to complete the recall repair.

This manufacturer concluded that for almost 72% of respondents, mobile repair, and vehicle pickup and delivery would overcome the barriers.



Communications emphasizing mobile repair increase all Takata recall repairs generally, whether completed by mobile means or not. For example, two manufacturers have observed an increase in total repairs after deploying outreach that clearly communicated the availability of mobile repair, though only 45% of the targeted population completed the repair using the mobile option. In many cases, the vehicle owners targeted for the campaign had been sent many recall communications prior to the mobile repair communication but had not completed the repair. One explanation for this is that vehicle owners better appreciate the urgency and necessity of completing the repair when they see that the manufacturer will send a technician to them at no cost.

Vehicle Owner Canvassing

Widespread vehicle owner canvassing was first used in the Takata recalls by the Monitor Team during the fourth quarter of 2016 for a pilot program targeting high risk vehicles in the Houston, Texas metropolitan area. The results of this canvass were remarkable, with 85% of the vehicle owners who were contacted during a canvassing visit scheduling a recall repair appointment. The Monitor Team completed an additional four canvassing pilots in Houston and two canvassing pilots in Fort Lauderdale, Florida. Results of these efforts were consistent with the first canvassing pilot. In total, 13 affected vehicle manufacturers have participated in at least one Monitor-led canvassing initiative.

Monitor-led Canvassing Metrics	
Owner (or Relative) Scheduling Percentage	73-79%
Repairs as a Percentage of Appointments	87-98%
Confirmed Wrong Address	37-58%

Qualitative Learnings from Canvassing

Canvasser experiences and in-depth interviews with canvassed vehicle owners also provided the Monitor Team with important findings, especially related to owners of older vehicles:

- Vehicle owners communicated skepticism around the free recall repair and the authenticity of the outreach channel;
- Canvassers learned that accommodations such as towing and mobile repair were effective in encouraging the owner to schedule a repair; and
- Vehicle owners who had received outreach about canvassing prior to the canvasser visits were often more willing to schedule a recall repair appointment with the canvasser.

The affected vehicle manufacturers that completed canvassing experienced similar interactions with vehicle owners. One affected vehicle manufacturer, which asked owners why their vehicles had not yet been repaired, found that 29% of canvassed owners did not understand the urgency of the recall, 29% responded that the vehicle was inoperable, 28% responded that they did not do business with a dealer and 14% responded that they could not be without their vehicle.

Importance of Mobile Repair During Canvassing

A key finding from Monitor-led canvassing pilots was the importance of mobile repair. For example, as mentioned above, in Monitor canvassing pilots, mobile repair was used for 75% of the completed repairs resulting from the canvass. In two different canvass pilots for the same manufacturer, in which mobile repair was only available in one, the completion percentage increased by 11 percentage points when mobile repair was offered. This same manufacturer launched a nationwide dealer mobile repair program in July 2020 and has observed significant demand for this program. Many of the repairs completed thus far in the mobile repair program were on vehicles that had been under recall for many years, but whose owners had found the repairs too inconvenient before mobile repair was available.

Development of Canvassing Programs by Affected Vehicle Manufacturers

Vehicle owner canvassing is increasingly being adopted by individual affected vehicle manufacturers to target their most at-risk unrepaired vehicles. To date, six affected vehicle manufacturers have launched their own canvassing programs. The results for these affected vehicle manufacturers' efforts have been similar to those for the Monitor pilots in terms of completion percentages, identification of out-of-transit vehicles and the preference of owners for using mobile repair. Three additional vehicle manufacturers are in various stages of considering and planning future canvassing programs.

Of the six manufacturers who have launched their own canvassing programs, four have used canvassers who are trained to conduct a mobile repair during the canvass visit or are accompanied by technicians who can conduct a mobile repair during the canvassing. The increased adoption and expansion of vehicle owner canvassing programs demonstrate the commitment these affected vehicle manufacturers have towards the safety of their owners. However, only one affected vehicle manufacturer has developed a national canvassing program to date, which was still only for a subset of its unrepaired population and was discontinued in the second quarter of 2020. COVID-19 temporarily suspended canvassing for the affected vehicle manufacturers in March and April, but they have resumed canvassing efforts and noted an increase in the number of opportunities to speak with vehicle owners as many continue to work from home.

As the affected vehicle manufacturers reach the later stages of their Takata recalls, vehicle owner canvassing will become an essential strategy in accelerating Takata recall repairs.

Dealer Engagement

At the beginning of the Monitorship, many affected vehicle manufacturers relied on dealer bulletins to notify their franchised dealers of the Takata recalls and had not developed any systems or processes for overseeing their field teams responsible for interacting with dealers. Most of the large affected vehicle manufacturers [4] have since developed multi-tier programs for the Takata recalls involving their dealers. *First*, vehicles are assigned to dealers, creating a discrete population of vehicles for which key performance metrics can be monitored, such as completion

[4] Large affected vehicle manufacturers are defined as affected vehicle manufacturers with more than 200,000 inflators affected by the Takata recalls.

percentage, incremental repairs, number of vehicles unrepaired, missed repair opportunities (i.e. dealer service visits that do not result in a Takata recall repair) and missed appointments. *Second*, manufacturers have developed dealer dashboards that include the aforementioned key performance metrics, creating tools for both franchised dealers and field teams to review performance and compare dealers. *Third*, regular dialogue between franchised dealers and the affected manufacturers' field teams reinforces to dealers the urgency of the Takata recalls, allowing the field team to communicate performance deficiencies to dealers and allowing dealers to communicate challenges encountered during vehicle repair or owner outreach back to the field team.

Affected vehicle manufacturers have also developed programs whereby vehicle owner contact information can be shared with dealers, within permissible use restrictions, and the costs of outreach materials for dealers are subsidized. Five affected vehicle manufacturers have assisted their dealers in creating specific recall repair events, some outside of normal business hours, dedicated to repairing vehicles affected by the Takata recalls.

There is significant opportunity for further scaling dealer engagement initiatives for the Takata recalls. Combined across all affected vehicle manufacturers, there are over 19,000 franchised dealers, which have more than 1.9 million service bays in over 11,000 zip codes and all 50 states, that can perform Takata recall repairs. Effectively leveraging these existing franchised dealer networks would allow affected vehicle manufacturers to use hundreds or thousands of local dealers to assist with recall outreach efforts. Research conducted by the affected vehicle manufacturers and the Monitor Team demonstrates that vehicle owners want to be contacted by local franchised dealers.

There are challenges in this regard. Franchised dealers operate as independent businesses and must weigh their own costs and risks against the benefit of actively participating in outreach efforts for the Takata recalls. When dealers are engaged in the recall process, affected vehicle manufacturers have seen consistently higher recall completion percentages. Repair percentages increase when dealers are proactive about ensuring that all staff are trained and informed, sending outreach to their communities, holding repair events and making the repair itself as simple and seamless as possible for the affected vehicle owner.

Table 6 below provides an example, showing the increase in incremental repairs resulting from one affected vehicle manufacturer's franchised dealers holding coordinated repair events in a local market.

Table 6

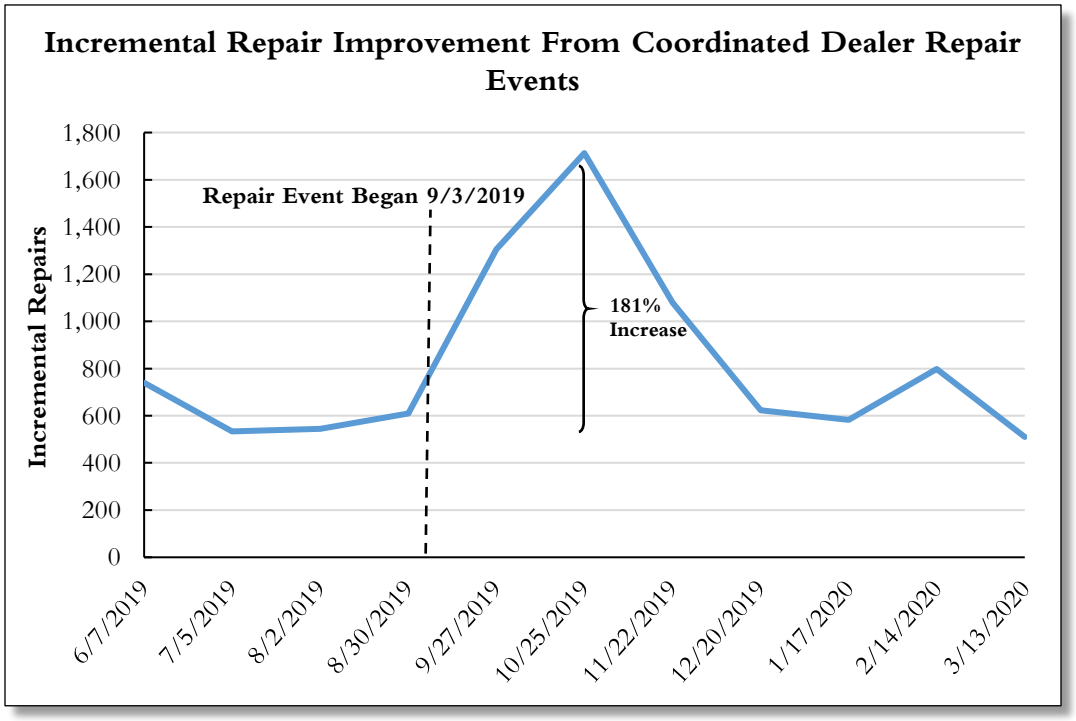
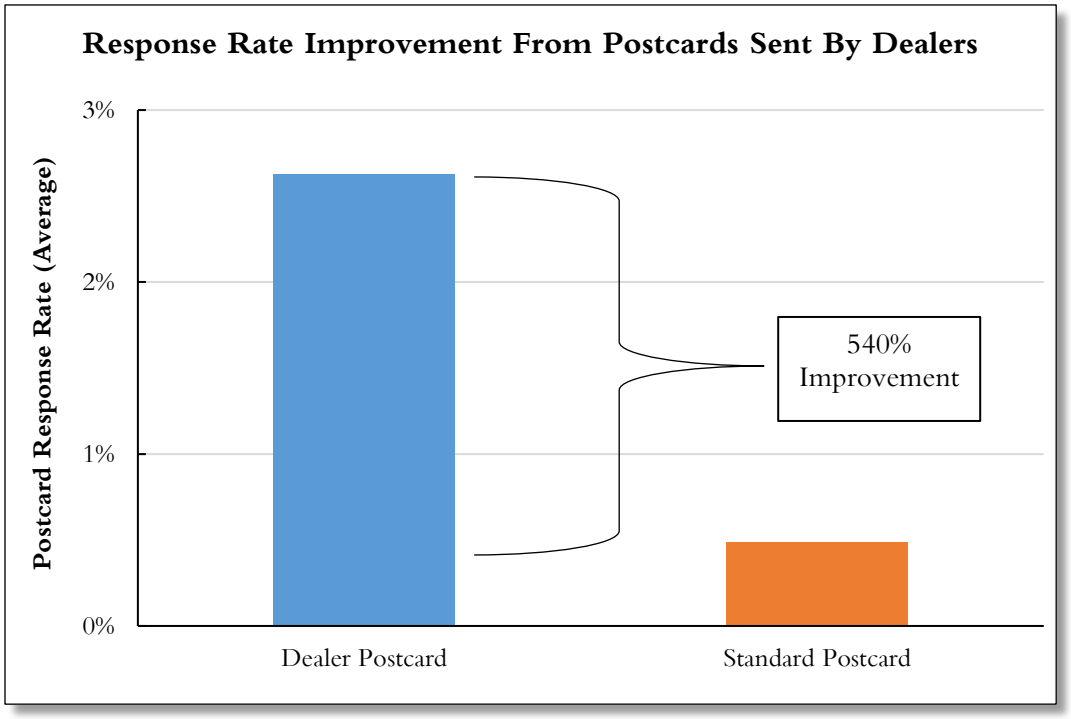


Table 7 below demonstrates the increase in completion percentages following outreach postcards having been sent directly to vehicle owners by franchised dealers of a particular manufacturer.

Table 7



Community Partnerships

Prior to the Takata recalls, affected vehicle manufacturers did not have comprehensive, sustained programs to engage local stakeholders regarding automotive recalls. The Monitor Team launched local initiatives in Houston, Dallas, South Florida and Southern California to engage in Takata recalls outreach and identify specific community members who could persuasively convey the message regarding the Takata recalls. For example, during the summer of 2018, the Monitor Team led intensive local market initiatives in three adjacent Southern California zip codes. This initiative included engagement on a local level with auto-related industries (such as IRFs), elected officials, insurance companies, law enforcement, apartment complexes and faith-based community leaders. These efforts resulted in 138 recall events with over 300 local organizations participating. Across these events, over 15,000 vehicles were checked, 2,000 vehicles with open Takata recalls were identified and the relevant vehicle owners were notified. Repairs at dealerships closest to the local engagement increased by approximately 30% following these initiatives.

In the fall of 2018, a similar initiative was held in the Houston, Texas metropolitan area. As a result of these activities, 9,603 vehicles were checked for recalls and 718 were found to

have open Takata recalls. Repairs at dealerships closest to the local engagement increased by approximately 24% following this initiative.

Third-Party Engagement

Prior to the Takata recalls, many affected manufacturers in recall campaigns had not yet successfully implemented partnerships with relevant third parties to assist in recall repairs. During the Monitorship, engagement with third-party stakeholders has been a key driver behind accelerating Takata recall completion percentages and increasing incremental repair rates. These efforts have been most successful when multiple affected vehicle manufacturers coordinate to provide a single point of contact with the third party. The affected vehicle manufacturers in the Takata recalls have coordinated engagement with state DMVs, IRFs, the insurance industry, used car dealerships and auction businesses.

State Departments of Motor Vehicles (DMVs)

State DMVs have proven to be especially valuable partners in the Takata recalls. The most significant effort has centered on an unprecedented campaign to send DMV-logoed letters to vehicle owners identified as having an open Takata recall. The letters provide a recall notification from an official, independent and trusted source, motivating many vehicle owners who may have been skeptical of prior outreach or who may not have paid attention to that outreach (if they received it). Such letters have never before been used at this scale in an automotive recall.

Through November 2020, DMV letters have been sent in 18 states and have targeted over six and a half million vehicle owners. DMV mailings have now been sent or approved in all Zone A states except Hawaii and the U.S. Territories.[5] DMVs in eight of the 20 Zone B states and seven of the 21 Zone C states have sent DMV letters, or are scheduled to send DMV letters in the future. Table 8 below summarizes the results of DMV letter campaigns. Tables 9 – 11 provide examples of the trends in incremental repairs before and after DMV mailings.

[5] The United States and Territories are divided into Zones A, B and C under the ACRO, based on the relative levels of high heat and humidity in those areas, which affects the risk of inflator explosion.

Zone A, the highest risk zone, includes Alabama, California, Florida, Georgia, Hawaii, Louisiana, Mississippi, South Carolina, Texas, Puerto Rico, American Samoa, Guam, the Northern Mariana Islands (Saipan) and the U.S. Virgin Islands.

Zone B includes the following states: Arizona, Arkansas, Delaware, District of Columbia, Illinois, Indiana, Kansas, Kentucky, Maryland, Missouri, Nebraska, Nevada, New Jersey, New Mexico, North Carolina, Ohio, Oklahoma, Pennsylvania, Tennessee, Virginia and West Virginia.

Zone C includes the following states: Colorado, Connecticut, Idaho, Iowa, Maine, Massachusetts, Michigan, Minnesota, Montana, New Hampshire, New York, North Dakota, Oregon, Rhode Island, South Dakota, Utah, Vermont, Washington, Wisconsin and Wyoming.

Table 8

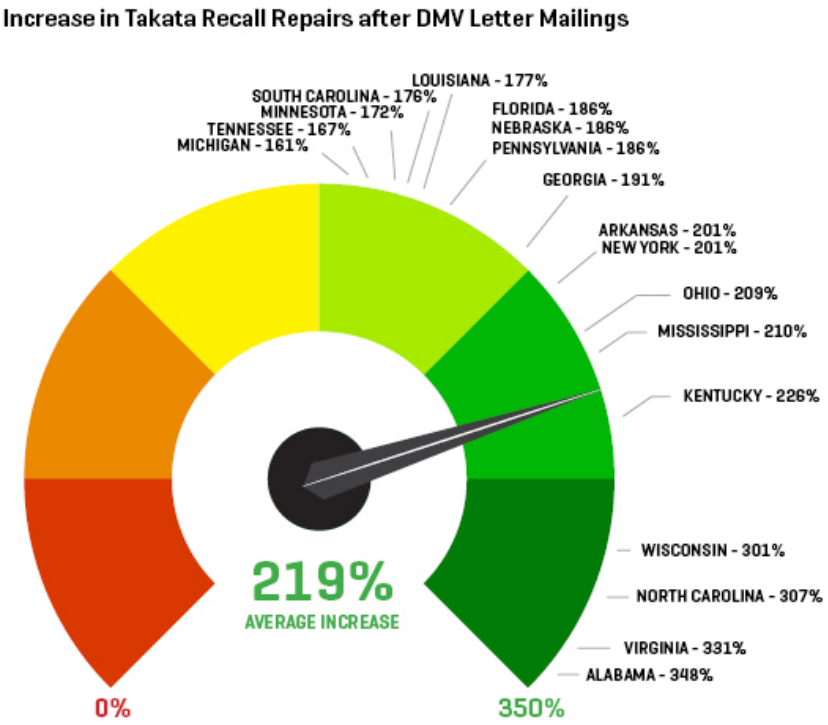

Increase in Takata Recall Repairs after DMV Letter Mailings
LOUISIANA - 177%
SOUTH CAROLINA - 176%
MINNESOTA - 172%
TENNESSEE - 167%
MICHIGAN - 161%
FLORIDA - 186%
NEBRASKA - 186%
PENNSYLVANIA - 186%
GEORGIA - 191%
ARKANSAS - 201%
NEW YORK - 201%
OHIO - 209%
MISSISSIPPI - 210%
KENTUCKY - 226%
WISCONSIN - 301%
NORTH CAROLINA - 307%
VIRGINIA - 331%
ALABAMA - 348%
219%
AVERAGE INCREASE
0%
350%

Table 9

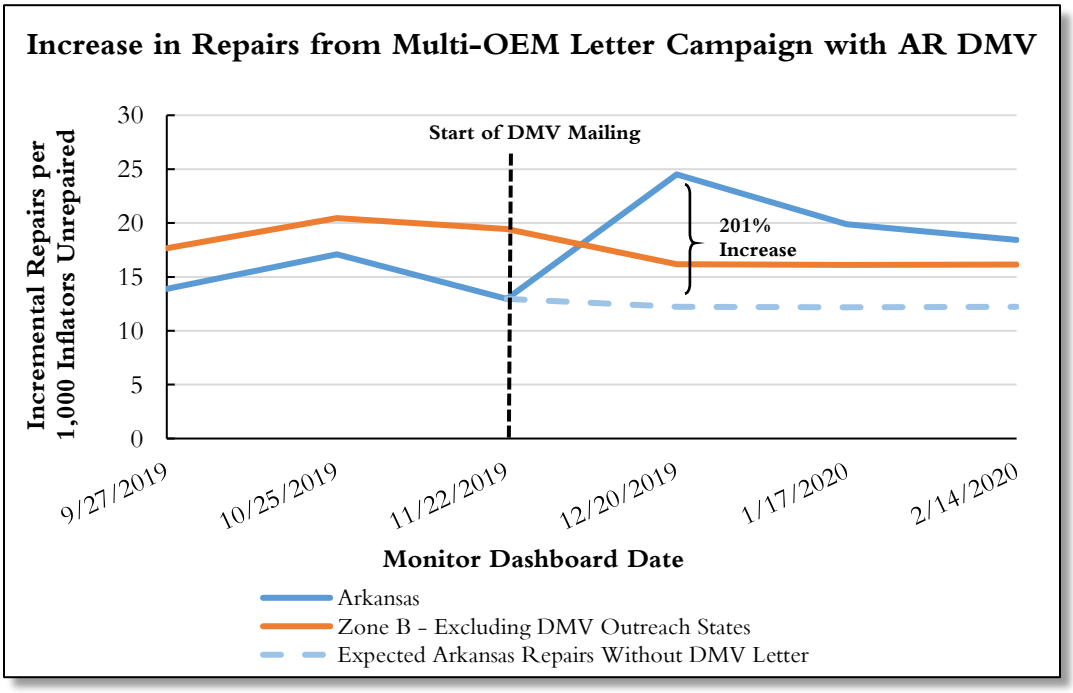


Table 10

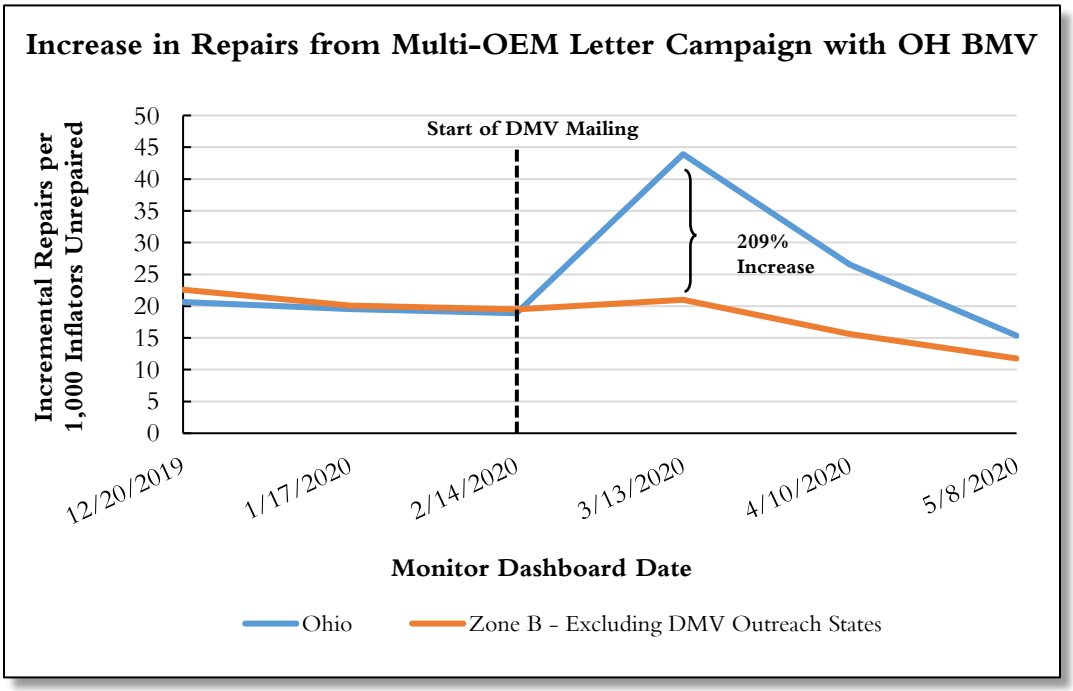
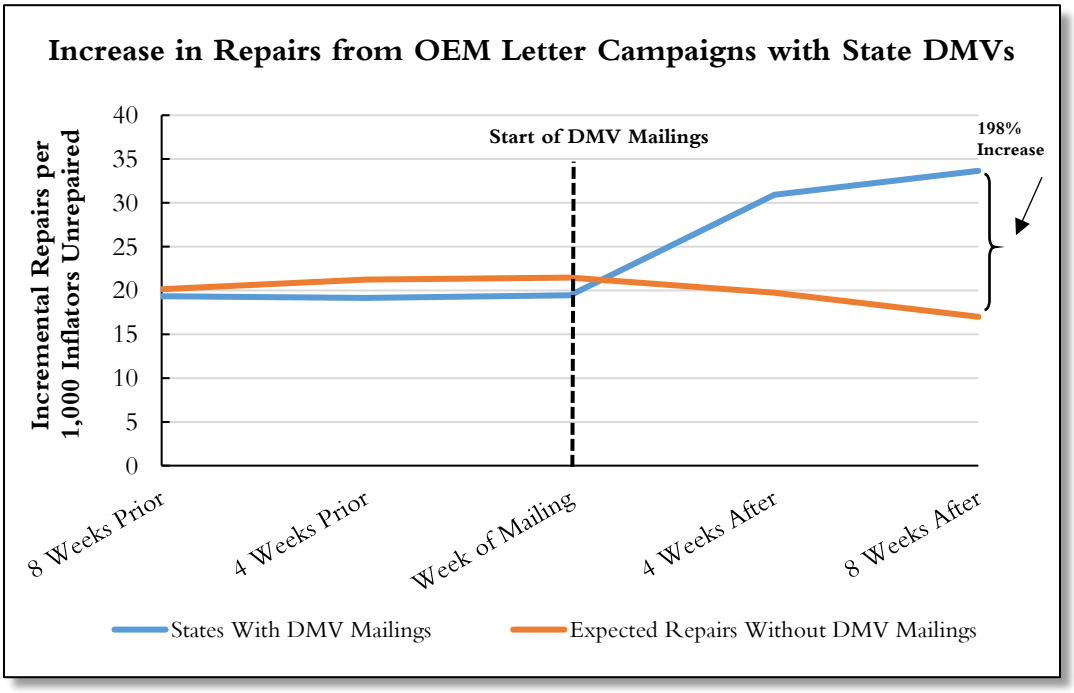


Table 11



Further letter campaigns continue to be planned in coordination with numerous additional state DMVs. Some state DMVs have also promoted the importance of checking vehicles for Takata recalls and completing the repairs on their websites, through social media and at branch locations. Other DMVs have done this even when they have not been able to authorize a mailing with their logo. Certain DMVs are considering additional communications related to certain vehicles for which NHTSA has issued "Do Not Drive" warnings.

In addition to outreach opportunities, the affected vehicle manufacturers can benefit from better understanding the data that is collected by state DMVs. For example, state DMVs participated in a virtual summit hosted by NHTSA and the Monitor in September 2020. Participants discussed the challenge presented by rules that allow a vehicle to be titled to an insurer and yet change hands up to four times without those transfers being recorded with the DMV. In cases where the intermediate holders are vehicle resellers, the only evidence of title transfer would be the assignment on the back of the paper title document, which would not be reflected in the DMV data (which is used by affected vehicle manufacturers for vehicle owner outreach) until the vehicle is transferred to a private owner not licensed to resell the vehicle.

State & Local Agencies

Following the success of the initial DMV letters, the Monitor Team, through its community partners and the affected vehicle manufacturers, worked with state and local government agencies to send recall-related outreach to vehicle owners of record with an open Takata recall. These have also substantially increased incremental repairs in the targeted areas.

In August 2019, letters with the logo of the Compton Water District in Compton, California were mailed to the affected vehicle owners of record, as identified by the manufacturers whose zip codes were within the water district. Following the mailing, repair rates in the Compton Water District were 234-244% higher than in the rest of California and in states where similar letters were not sent. Furthermore, repair rates in the Water District for certain vehicles more than 10-years old—which are some of the most dangerous vehicles and have been under recall for the longest amount of time—increased by two to 11 times the pre-mailing rates.

In January and February 2020, letters containing the logo of the California Bureau of Automotive Repair were sent to all California residents that affected vehicle manufacturers had identified as having an open Takata recall. The letters sent to vehicle owners in mid-January resulted in repair rates 164% higher than expected in California, while the letters launched in late January and early February resulted in repair rates 132% higher than expected.

Additional local outreach continues in Southern California, South Florida and Houston, Texas, using the logos of local governmental agencies. In March and June 2020, letters with the logo of La Puente, California were mailed to affected vehicle owners living within that city. For the affected vehicle manufacturers that sent letters using the La Puente logo in March 2020, repair rates in the city were 166-202% higher than in the rest of California, notwithstanding the social distancing orders issued in California in early March. A comparison between repairs in La Puente and the rest of California is shown in Table 12 below. In June 2020, letters with the logo of Miramar, Florida, were mailed to affected vehicle owners living within that city. A comparison between repairs in Miramar and the rest of Florida is shown in Table 13 below. In July 2020, letters with the logo of Fort Bend County, Texas, were mailed to affected vehicle owners living in that county. A comparison between repairs in Fort Bend and the rest of Texas is shown in Table 14 below. A composite chart combining the impacts of all local governmental Takata recalls outreach is shown in Table 15 below.

Table 12

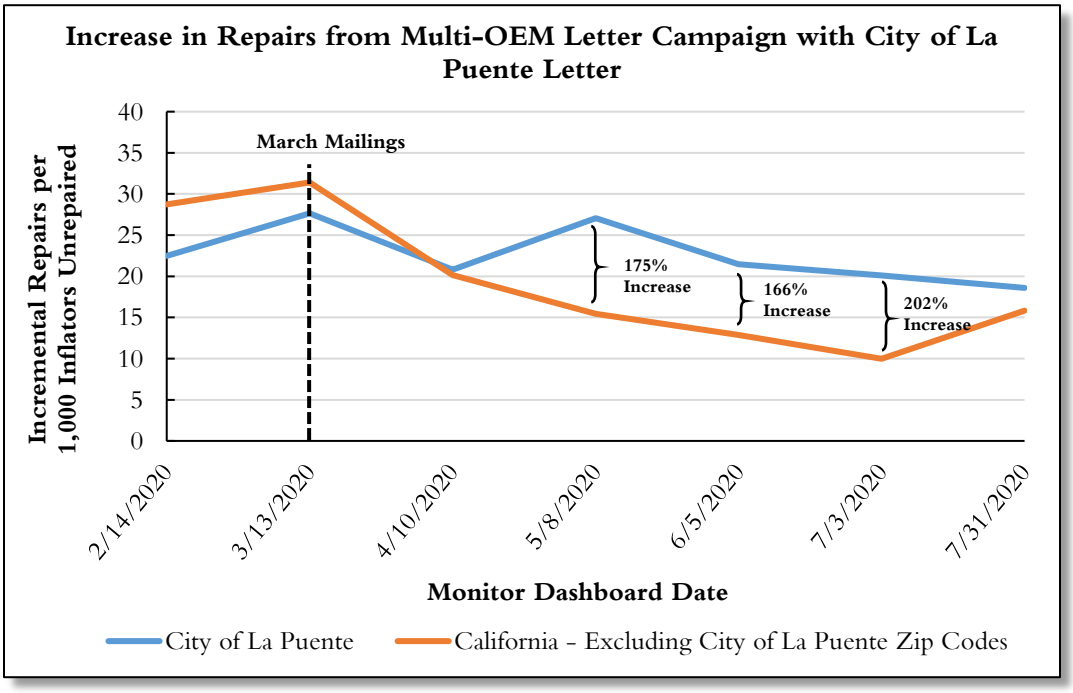


Table 13

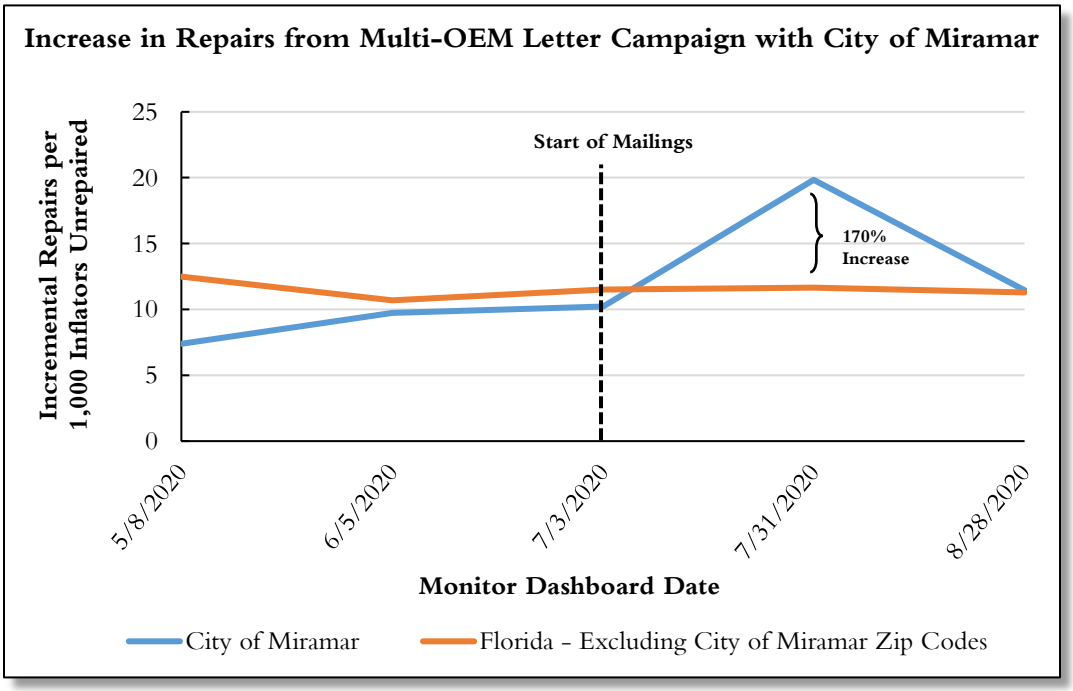


Table 14

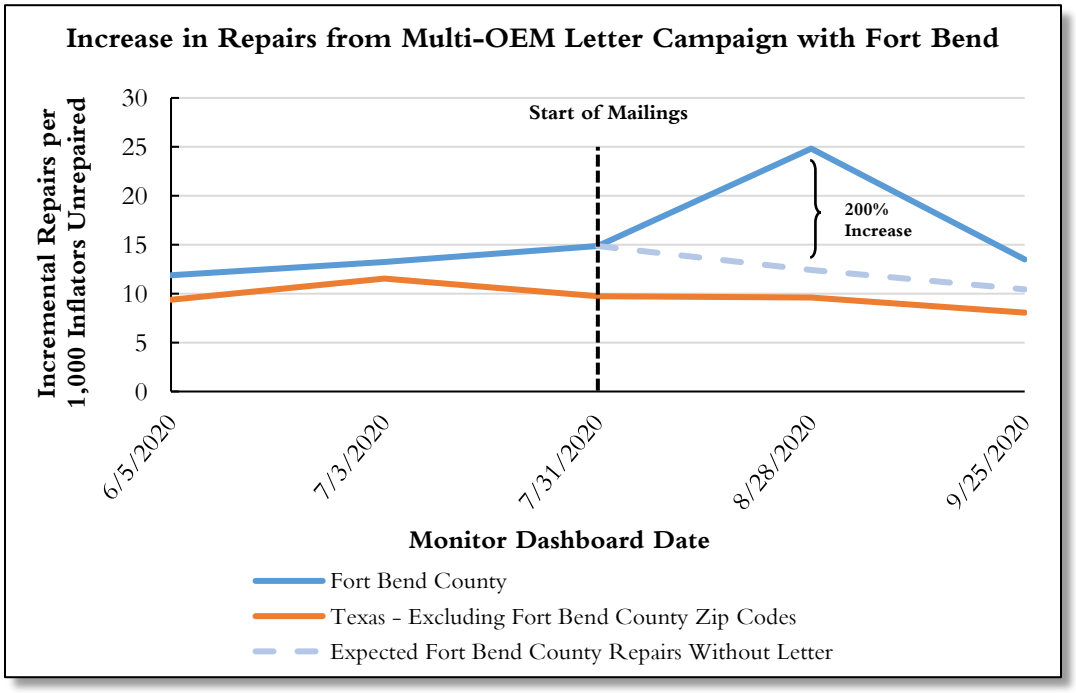
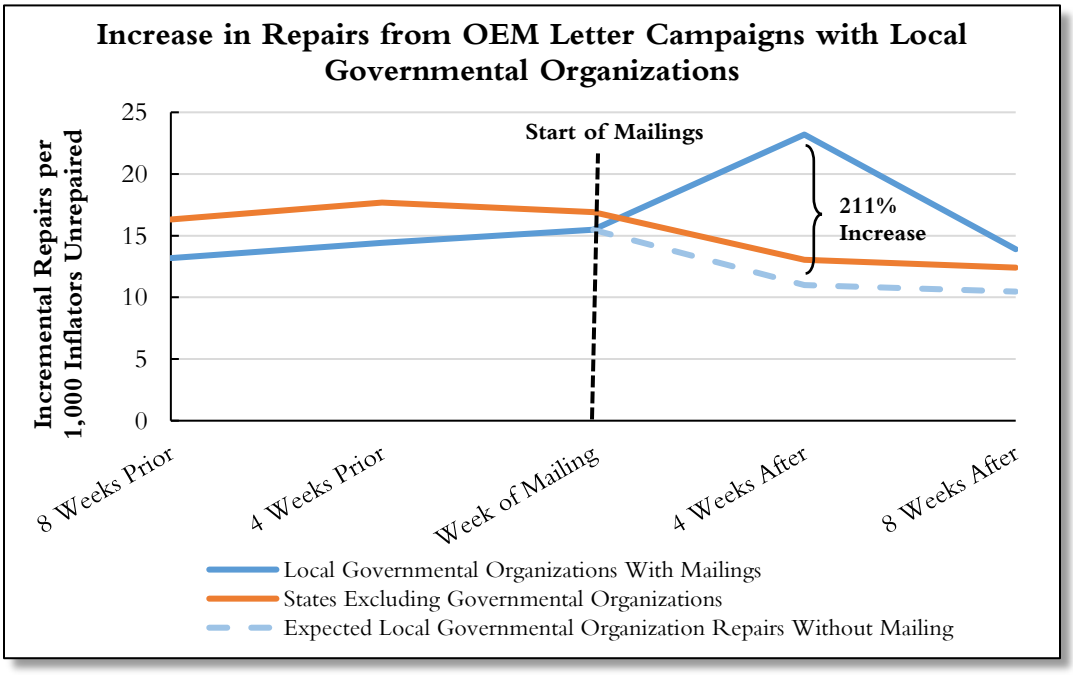


Table 15



The Monitor has found that Takata recalls outreach is most effective when layered across multiple channels. This effect has also been observed in local outreach. Layering of

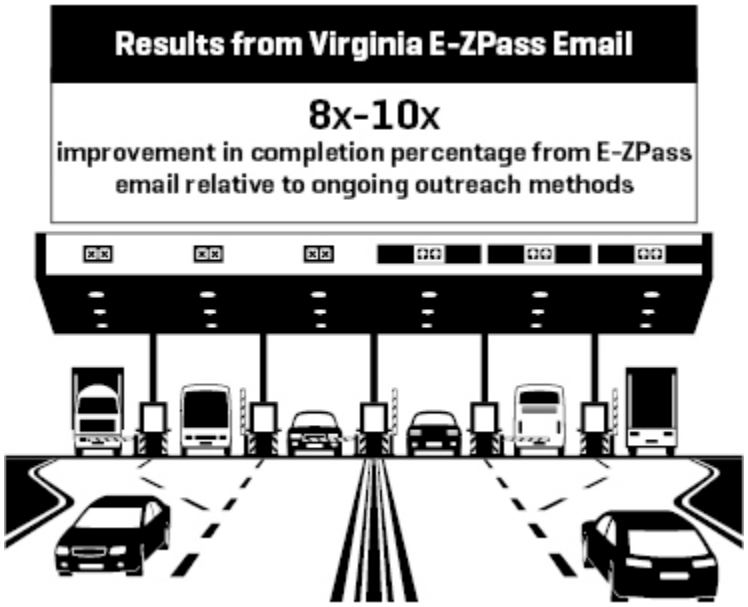
outreach across different channels was done in Houston, Texas in the fourth quarter of 2019. In October 2019, letters with the logo of the Houston Department of Neighborhoods were mailed to affected vehicle owners living within the Houston metropolitan area. On December 13, 2019, the Metropolitan Transit Authority of Harris County (METRO) began a campaign to increase awareness of the Takata recalls. This campaign took place over a period of six weeks (December 2019 to January 2020) and included a combination of digital and "out of home" advertising (in English, Spanish and Vietnamese) at bus and rail stations and METRO office locations, as well as a featured story in the METRO Connections newsletter. Flyer distribution and regular social media activity was used to amplify the impact of this campaign. The combined impact of the Department of Neighborhoods letter and METRO campaign resulted in the Houston metropolitan area's repair rates being 140% to 187% higher than the rest of Texas following this engagement. Notably, the impact on Houston repair rates had double the longevity than typically observed for mailings of this type, spanning eight consecutive weeks following the Department of Neighborhoods letter mailing date, compared to the four-week increase that is typically observed.

Toll Road Authorities

Prior to the Takata recalls, toll road authorities had not previously been engaged by vehicle manufacturers to assist with consumer outreach. Similar to auto insurance carriers, these organizations have billing relationships with their account holders and maintain owner records that might be different from, and in some instances, more accurate than, other sources. The Monitor Team shared with the E-Zpass Group information about the risks and urgency of the Takata recalls, the challenges of vehicle owner contact data integrity, and the successful and impactful engagement that had been conducted with state DMVs. The Virginia E-ZPass organization subsequently agreed to work together with the Monitor Team and the affected vehicle manufacturers to notify Virginia E-ZPass account holders about the Takata recalls. Affected vehicle manufacturers provided a consolidated list of VINs with open Takata recalls to the Virginia DMV. The DMV was able to identify which of the VINs provided by affected vehicle manufacturers were registered in Virginia and had a related license plate number. The identified VINs with license plates were provided to Virginia E-ZPass, which then determined which of the identified license plates matched account holders.

In July 2020, Virginia E-ZPass sent approximately 37,000 emails to its account holders who had been identified as having an open Takata recall, a figure representing 12% of the defective airbags believed to be in Virginia. Virginia E-ZPass has also provided a list of VINs (with no other identifying information) that it matched to its account holders so that the results of the notification effort could be analyzed. The outreach effort was highly successful, triggering

more than an eight-fold increase in repairs. Based on the success of this first initiative, the affected vehicle manufacturers are identifying similar opportunities with other E-ZPass organizations.



Independent Repair Facilities (IRFs)

IRFs were not widely engaged in automotive recalls prior to the Takata recalls. They have proven to be a valuable, though difficult, group to engage, as the industry is fragmented, comprising thousands of local mechanics, oil change shops and collision facilities across the country. In order to build scalable programs, affected vehicle manufacturers have used shop management software providers and parts distribution networks to build APIs (application program interfaces—electronic interfaces connecting to affected vehicle manufacturers' unrepaired VIN lists) that alert an IRF of an open Takata recall when a VIN is input into its system. These programs have been used at both collision repair shops (body shops) as well as vehicle maintenance and service centers.

Three of the affected vehicle manufacturers have expanded their API alert programs to provide a financial incentive to IRFs. These efforts have resulted in completion percentages nearing 50%, which are two to three times the completion percentages realized by other manufacturers' IRF programs that do not offer an incentive. These results are consistent with the Monitor Team's research into 718 IRFs in 48 states that found 72% of the respondents would be more likely to work with nearby dealers to complete recall repairs if monetary incentives were offered by the affected vehicle manufacturers. An incentive of $75 or more per vehicle was suggested by 75% of respondents.

As this experience shows, providing IRFs the means efficiently to identify open Takata recalls is an important first step in IRF engagement, but on its own likely does not maximize the full potential of IRFs to facilitate Takata recall repairs. Accordingly, to realize the full potential of working with IRFs, a financial incentive for the IRF may be needed in order to encourage a lasting and effective partnership with local dealerships.

Vehicle Ownership Transition Strategies and Engagement of Auctions and Independent Dealerships

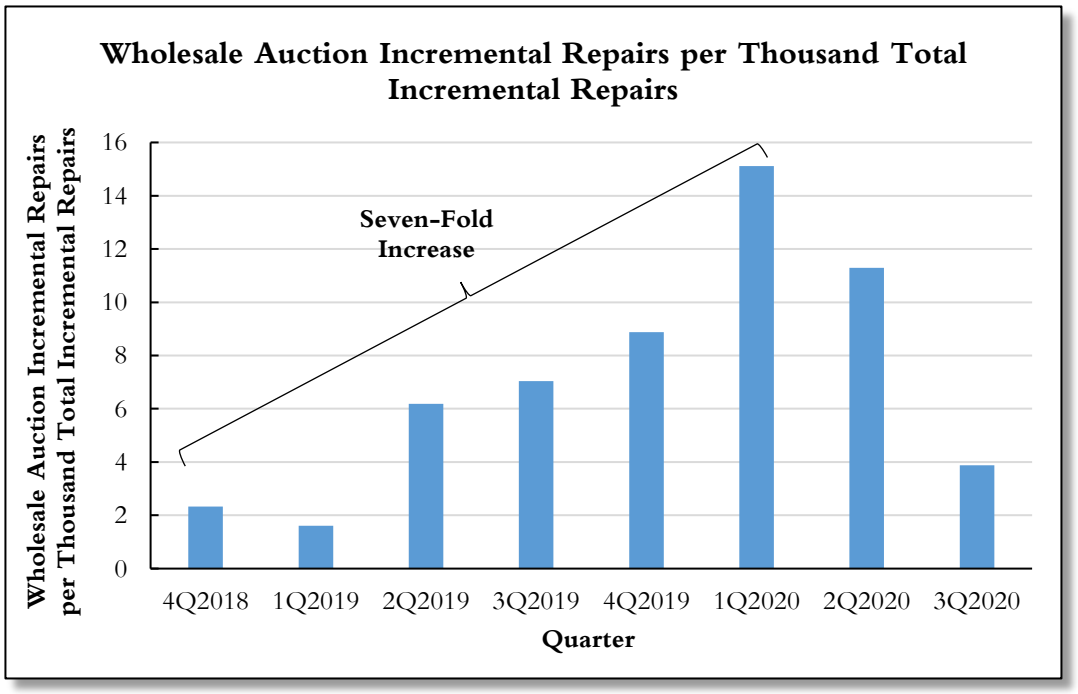
Prior to the Takata recalls, many affected vehicle manufacturers did not consider how often vehicle ownership changes occurred, and few affected vehicle manufacturers had programs to perform recall repairs at wholesale vehicle auctions. None of the affected vehicle manufacturers had comprehensive programs to identify and repair used vehicles listed for sale with open recalls.

Over the course of the Monitorship, more affected vehicle manufacturers began to appreciate the volume of affected vehicles processed by auctions and independent used vehicle dealers, as well as the potential impact of notification and repair processes that could be developed to accommodate their business models. Through refreshing vehicle registration records and analyzing the changes in vehicle ownership data, affected vehicle manufacturers found that 20% to 30% of unrepaired vehicles with open Takata recalls have changes in ownership information over an annual period. In conjunction with better data analysis, including web scraping and web crawling, to identify vehicles with open Takata recalls listed for sale on the Internet, affected vehicle manufacturers began to develop mobile repair programs that enabled the repair of these vehicles within the short timeframes during which vehicles were located on auction and independent dealer lots.

Wholesale Auctions: Wholesale auctions process large volumes of vehicles that are coming off-lease (typically 2 or 3 years old), or that are bank-owned or dealer trade-ins. At the beginning of the Monitorship, the initial recall repair programs used at auctions by two manufacturers were limited to off-lease vehicles and resulted in low volumes of Takata recall repairs, because the vehicles were generally too young to be affected by the Takata recalls.

In the fourth quarter of 2018, a third affected vehicle manufacturer developed a program with large commercial auctions for all of its vehicles with open Takata recalls. This process included identifying vehicles with open Takata recalls, obtaining permission from the seller or purchaser, and completing a mobile repair within the one-week timeframe during which these vehicles were typically processed through the auctions. The results were very positive. This manufacturer has been able to perform recall repairs on approximately 55% of the vehicles it has identified with open Takata recalls associated with the auction. Table 16 below summarizes the incremental wholesale auction repairs per thousand total incremental repairs completed by this affected vehicle manufacturer by quarter. Prior to the COVID-19 pandemic, wholesale auction repairs were increasing in proportion to total incremental repairs, increasing seven-fold since the beginning of wholesale auction engagement. The auction covered by this program closed in March 2020 due to COVID-19 but reopened towards the end of June with a reduced volume of vehicles being bought and sold.

Table 16



A fourth manufacturer has also developed a similar program.

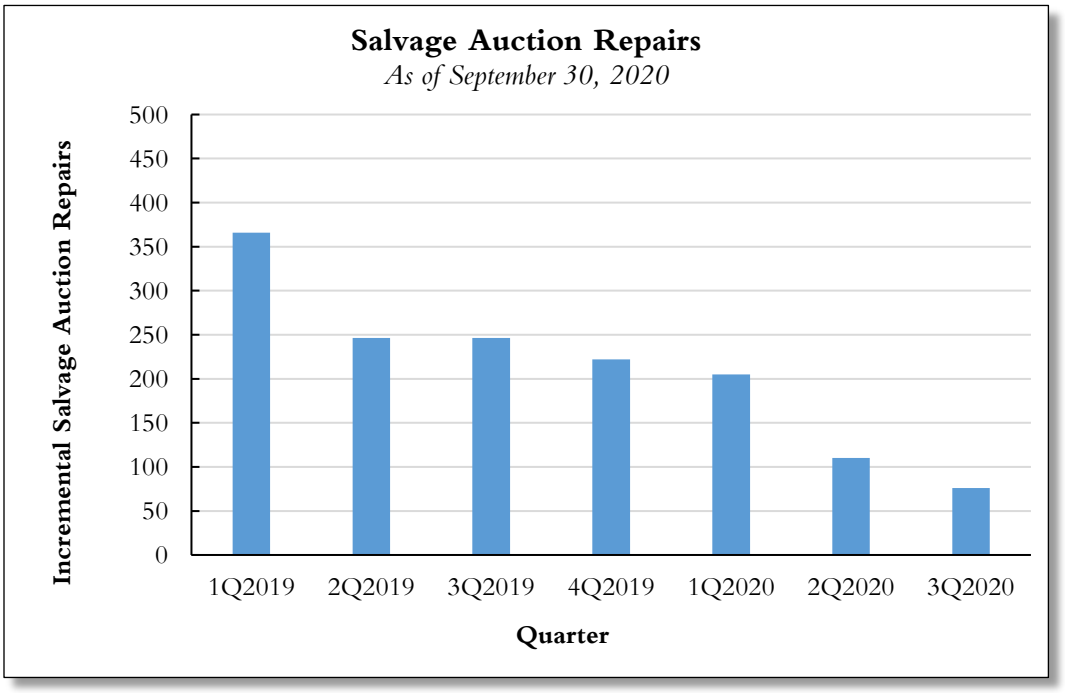
Salvage Auctions: Two additional affected vehicle manufacturers have developed programs to work with salvage auctions, in which vehicles are typically sold by insurance companies after taking title to vehicles from total loss transactions.[6] While the volume of vehicles that pass through salvage auctions is lower than wholesale auctions, there are also fewer distinct

[6] All but two of the large manufacturers also have programs whereby inflators retrieved from salvage yards are collected and accounted for. Most of these manufacturers also collect photo evidence of deployed airbags identified from the salvage retrieval process.

businesses selling these vehicles than in wholesale auctions, which allows for greater standardized permissions to complete recall repairs and a more expedited repair process.

Table 17 below summarizes the salvage auction repairs completed by one affected vehicle manufacturer by quarter. Similar to the experience with wholesale auctions, COVID-19 has impacted the volume of vehicles and Takata repairs completed at salvage auctions.

Table 17 [7]



In some instances, vehicles at salvage auctions have deployed airbags as a result of a vehicle collision, obviating the need for a recall repair. Recognizing this, one affected vehicle manufacturer has worked to develop new technology allowing salvage auctions to upload photo evidence of deployed airbags so the affected vehicle manufacture can focus its resources on other vehicles in need of the recall repair.

Independent Dealerships: Prior to the Takata recalls, affected vehicle manufacturers typically did not identify and attempt to repair recalled vehicles held for sale at independent used-vehicle dealerships. In 2018, the Monitor Team conducted a survey of independent automobile dealers and found that 80% of the 1,500 respondents commonly check for open recalls on vehicles in their inventory. 79% of these respondents indicated that they complete the recall, with the remaining 21% indicating that the recall repair is not completed. The independent dealers that do not check for recalls cite a lack of time, absence of financial

[7] This affected vehicle manufacturer began completing salvage auction repairs during the fourth quarter of 2017 but was inconsistent in its reporting of inflators and vehicles until the fourth quarter of 2018.

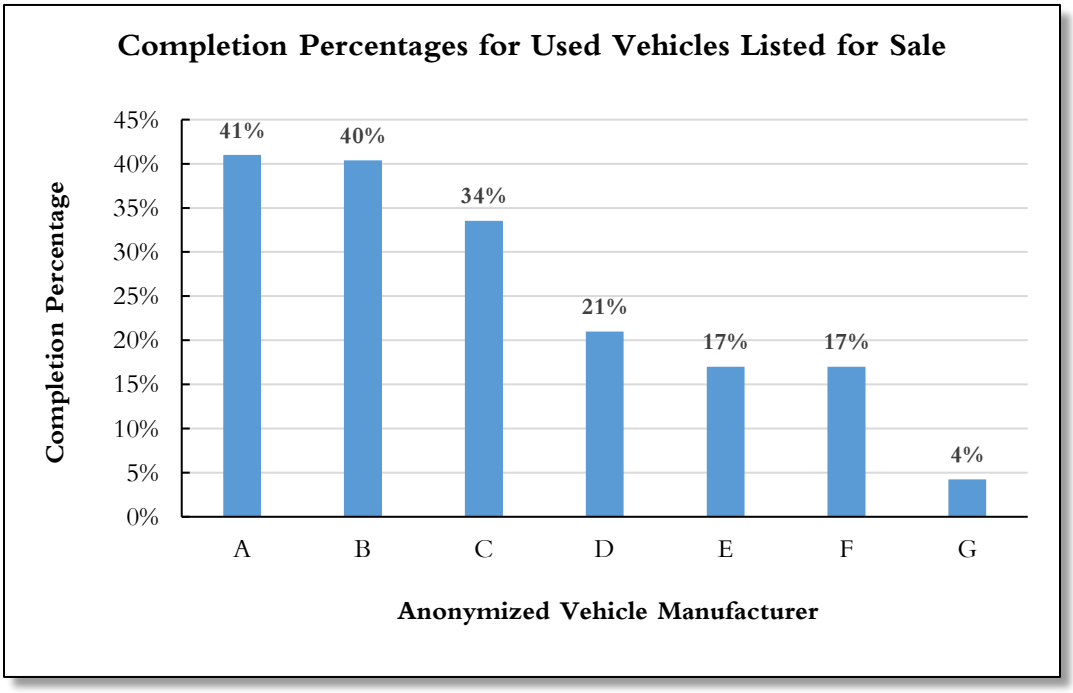
incentives and distance to the nearest franchised dealer as reasons for not checking for recalls. 89% of all respondents, which included those with and without a process to search for recalls, indicated a willingness to work with franchised dealers to repair open vehicle recalls. These survey results suggest that independent used vehicle dealers are willing partners to assist in completing Takata recall repairs, and are focused on efficient repair processes.

Over the course of the Monitorship, thirteen affected vehicle manufacturers have developed programs to identify and repair vehicles listed for sale at independent used-vehicle dealerships with open Takata recalls. As with partnering with IRFs, developing tools to identify used vehicles with open Takata recalls was an important first step in engaging with independent used-vehicle dealerships to enable the repair of these vehicles. The affected vehicle manufacturers have different levels of engagement and coordination with independent used-vehicle dealerships, resulting in varying completion percentages across the affected vehicle manufacturers from these activities. The affected vehicle manufacturers that have developed the strongest follow-up mechanisms to contact independent dealers have achieved the highest completion percentages.

For used vehicles with open Takata recalls that are listed for sale, the manufacturers with the highest completion percentages are those which have built robust processes to coordinate repairs with independent dealers. For example, one manufacturer uses a three-pronged approach of sending direct mail to independent dealers, providing a feed of these used-vehicle listings to its franchised dealers and using its case management call center to coordinate with independent dealers to use mobile repair. Another manufacturer uses its dealer and field teams to coordinate Takata recall repairs with independent dealers and also offers a $50 incentive to the independent dealer for each repair completed. The completion percentages these manufacturers realized for Takata recall repairs of used vehicles are generally twice those of the manufacturers that have not developed as well-defined processes to repair these vehicles.

Table 18 below summarizes completion percentages, where reported, across different manufacturers resulting from the identification and repairing of used vehicles listed for sale.

Table 18 [8]



New Owner Segments: One affected vehicle manufacturer has developed a new ownership segment whereby it sends identified new owners of used vehicles affected by the Takata recalls separate communications modeled after communications required by the regulatory and legislative framework. Because of the change in ownership, the new vehicle owner is likely unfamiliar with the Takata recalls and would not have received prior notices. To account for the new owner's lack of familiarity with the Takata recalls, communications going to these new owners more clearly define the Takata defect and repair procedures. This manufacturer has reported a completion percentage from these letters approximately twice that observed from standard outreach.

So far, the affected vehicle manufacturers have not yet developed a comprehensive strategy around vehicle ownership transitions that incorporates engagement at every potential step of such transitions, i.e. wholesale auctions, salvage auctions, independent dealers and new owner segments. However, during the Monitorship, affected vehicle manufacturers have begun a number of programs in these areas, which have shown success in accelerating Takata recall repairs.

[8] Metrics related to the volume of used vehicles identified and / or repaired were not reported by all affected vehicle manufacturers.

Developing strategies for implementing programs like these more comprehensively should be a continuing goal of the Takata recalls.

Insurance Industry

Automobile insurers can be valuable partners in the completion of the Takata recalls, as insurers have vehicle owner contact information that is currently unavailable for use by the affected vehicle manufacturers. Because of the billing relationship between auto insurers and their customers, and the fact that underwriting takes into account the location of the vehicle, the vehicle owner contact information that insurers have has a higher likelihood of being correct than registration information, especially for older vehicles.

Affected vehicle manufacturers have begun programs to work with automobile insurers to identify and contact current vehicle owners. One affected vehicle manufacturer has sent three Takata recalls notification letters to vehicle owners that were matched to insurer records, using the owner information from the insurance company to conduct the outreach. The letters sent during these pilots resulted in completion percentages between 13% and 20% each, while the completion percentage from outreach using registration-sourced information was less than 2%.

In January 2020, the Monitor Team organized an Insurance Summit, which brought together affected vehicle manufacturers, automobile insurers and insurance industry trade groups to participate, in person and virtually, to discuss various partnership opportunities that may exist. In particular, the attendees considered the possibility of conducting Takata recall notifications across multiple affected vehicle manufacturers using insurer data, as well as the logistics of identifying the final disposition of insurance-titled vehicles.

Industry Collaboration

Summits and Working Groups

The Monitor Team has been able to serve as a central organizer to foster collaboration among all affected vehicle manufacturers. This level of cohesive industry participation has not been seen in any other monitorship. The Monitor Team, in coordination with NHTSA, has hosted 11 Takata recall summits, which 18 of the 19 affected vehicle manufacturers have attended, and where best practices have been shared.

These summits have also fostered partnerships between the affected vehicle manufacturers and other third parties. For example, at the 10th Takata Summit, held in January 2020, representatives from the automobile insurance industry (insurers and auto insurance trade groups) attended in person and virtually to discuss opportunities for industry collaboration. In September 2020, the Monitor Team held a summit where representatives from state DMVs and local toll road authorities discussed future engagement opportunities.

The Monitor Team has also fostered collaboration between the affected vehicle manufacturers by creating several working groups related to their common areas of focus. The first working groups were created in March 2017 and new working groups have been added and others suspended since then depending on evolving needs.

- Batch VIN Lookup (March 2017 – September 2017)
- Canvassing (March 2017 – August 2018)
- Data Source Evaluation (March 2017 – September 2018)
- Dealer Engagement (March 2017 – September 2018)
- DMV Engagement (March 2017 – Present)
- Finding Used Vehicles for Sale (March 2017 – September 2018)
- Insurance Engagement (March 2017 – Present)
- Scrap and Salvage Identification (March 2017 – September 2017)
- Owner Research and Communications (July 2017 – May 2019)
- Puerto Rico, Tribal Nations and Other Unique Populations (July 2017 – March 2020)
- Third-Party Stakeholder Communications (April 2018 – December 2018)
- In-Market Activities (September 2018 – May 2019)
- Repairing Vehicles in Transition (September 2018 – May 2019)
- Toll Roads and Transit Authorities (November 2019 – Present)

These working groups have become a productive forum for ongoing safety collaboration in the industry.

Airbagrecall.com

Through qualitative and quantitative research, the Monitor analyzed the steps and impediments related to owners checking whether their vehicle has an open recall. Based on this research, the Monitor identified that checking a vehicle for a recall was a difficult process that required an owner to enter a vehicle identification number and then locate the closest dealer and its phone number to schedule an appointment. In 2016, the Monitor launched a website and mobile app (AirbagRecall.com) to streamline the process, to enable vehicle owners to check more easily and efficiently for open recalls and plan repairs, if necessary. In addition to allowing users to search for all open recalls by VIN, the app also allows them to scan a vehicle's license plate to check for open recalls.

III. MOVING FORWARD

Over 11 million unrepaired Takata inflators remain unaccounted for despite a large portion of them having been under recall for many years, in some instances with numerous prior outreach attempts. This population, representing some of the most challenging vehicles to repair and owners to reach, will require the most advanced strategies and efforts. The two most recent fatalities that occurred earlier this year underscore the importance of accounting for each and every defective Takata inflator. The risk of additional inflator explosions only increases as time passes and the cost of failure is measured in human lives.

Development of More Sophisticated Data Driven Strategies

A significant portion of the owner data that affected vehicle manufacturers have for the remaining unrepaired population is likely incorrect. The affected vehicle manufacturers must develop and implement sophisticated data strategies that seek to identify where owner information is incorrect and where there are opportunities to supplement existing vehicle owner data. They must also develop better messaging and utilize more effective messengers and channels to reach these vehicles. As previously discussed, multiple sources of owner information have been used to date in the Takata recalls, which have contributed to completion percentages in excess of 90% for some of the oldest and most at risk vehicles. These results suggest that correct owner data can be obtained if an adequate data strategy is employed.

However, many of the affected vehicle manufacturers have not employed such a data strategy. These manufacturers commonly do not understand how the owner information they purchase is aggregated from the different states where vehicle owner data is sourced. A common misconception among the affected vehicle manufacturers is that they are receiving all information available through vehicle registration and titling. Instead, many of the affected vehicle manufacturers have found that they purchase a base package that uses an algorithm to select a single point of contact from state registration and title records. Additionally, many of the manufacturers have not developed a process to use multiple sources of owner information efficiently, such as identifying a sequence of data sources to use when one source is found to be incorrect. Data attributes from different types of sources such as registration dates, service location and license plate recognition sightings can also be used to assess the likelihood of owner information being correct. Further, analysis of vehicle owner data to improve the identification of unique owner segments within unrepaired vehicle populations will allow for more targeted, and therefore more effective, outreach, based on the specific needs of vehicle owners.

Targeted Communications Removing All Repair Obstacles

The development of future communication strategies should include more targeted communications directed at specific segments where the repair needs could be different from the overall population. For example, business owners, single parents, older drivers, younger drivers, do-it-yourself owners, owners from diverse cultural backgrounds and owners that reside far from dealers may each require a different approach from the rest of the unrepaired populations. Affected vehicle manufacturers must accept that previous communications sent to vehicle owners with unrepaired Takata recalls have failed in their purpose. Accordingly, manufacturers need to update and refresh communication strategies continually, with a focus on impactful messaging to capture the attention of affected vehicle owners that have not yet completed their repairs.

The impact of direct and personal communication is significant. Vehicle owner canvassing programs across multiple geographies are needed, not only to motivate vehicle owners to complete Takata repairs, but also to identify the barriers that continue to prevent some owners from completing recall repairs and the accommodations needed for these owners.

Research has consistently shown that vehicle owner inconvenience is a primary barrier for the remaining vehicle owners with unrepaired Takata recalls. Affected vehicle manufacturers need to advertise the availability of the services that they have created more prominently to overcome this obstacle, and must be flexible to accommodate owner needs. Vehicle owner communications need to shift their focus from notification of the Takata recalls to the services that are available to vehicle owners to overcome any inconvenience associated with the repair.

Maximize the Potential of Franchised Dealers

Franchised dealers provide unique opportunities to interact with vehicle owners and relevant stakeholders in their local markets. Affected vehicle manufacturers must find ways to align interests with their dealers to scale programs such as mobile repair and other accommodations that reduce owner inconvenience. The availability of these programs and other pertinent information should be included in required training for relevant dealer employees throughout the year to ensure this information is top of mind and new employees are aware of these programs. There also are considerable opportunities in connecting dealers with local third parties, such as IRFs, auctions, used car dealers and insurance agents, to drive more effective engagement with vehicle owners. Leveraging high performing dealers to demonstrate efficacy will be important in motivating low performing dealers to increase their efforts in the Takata recalls. All affected vehicle manufacturers need to monitor dealer interactions with affected Takata vehicle owners through mystery shopping programs in order to ensure that repairs are prioritized and available accommodations are offered.

Further Align Stakeholder Vehicle Safety Interests

Many independent third-party stakeholders have a shared interest in vehicle safety and have been willing participants in notifying vehicle owners of Takata recalls. The continued engagement with these third-party stakeholders is crucial to identifying and motivating the remaining unrepaired population to complete a Takata recall repair.

Auction houses and independent dealers are a source of sustained repair opportunities once programs have been developed and implemented. The processes and logistics of identifying and repairing vehicles at these locations require an investment of time and resources but have proven successful in increasing completion percentages in the Takata recalls without disruption to third-party stakeholders.

Opportunities exist for the affected vehicle manufacturers to better understand the constraints and motivations of IRFs in order to better capitalize on this engagement. The unrepaired population of the Takata recalls consists primarily of older vehicles with a weighted average model year of 2007. These vehicles do not commonly visit franchised dealers, but because of their age, require vehicle maintenance and servicing. Though the IRF industry is fragmented, opportunities exist through shop management software providers, trade groups,

franchises and combined owner groups to work with large IRFs to increase Takata recall completion percentages. Affected vehicle manufacturers should concentrate their efforts on developing programs to align their interests with IRFs to assist franchised dealers more proactively in providing leads for Takata recall repairs.

Toll road authorities represent another opportunity where existing engagement has just begun. To date, only one toll road authority has been engaged, but the results have been remarkable. In addition to the owner data held by these organizations, and the opportunity to use an alternate messenger, vehicle use information that is collected from using toll roads can be invaluable in proving vehicle status (*i.e.* whether the vehicle remains on the road) for the remaining unrepaired population as well as information on the general locations of vehicles.

State DMVs and local authorities have also proven to be willing and able participants in notifying vehicle owners of Takata recall repairs. Almost half of all U.S. states have allowed the use of their logos for Takata recall letter notifications, which has resulted in incredible success at increasing completion percentages. The use of additional letters, emails, notifications through registration renewal and other innovative strategies can further capitalize on these efforts. It is also important that affected vehicle manufacturers understand how different states collect vehicle owner data through registration and titling of vehicles to inform data strategies. Finally, the affected vehicle manufacturers need to consider the defect descriptions provided to states that notify vehicle owners through registration renewals. Often these descriptions are technical and not easily understood by vehicle owners. The use of plain language that is more widely understood is a best practice that has been found to be impactful in conveying the risks and urgency of the Takata recalls vehicle owners.

Prioritize Risk

As defective Takata inflators in each unrepaired vehicle continue to age, the risk of a potentially deadly explosion increases. Certain inflators have been found to have an increased risk of explosion based on analyses conducted by NHTSA and the Monitor Team. These analyses have been shared with affected vehicle manufacturers and have highlighted circumstances in which certain inflators may pose a greater risk to vehicle owners, enabling affected vehicle manufacturers to consider recall strategy escalation techniques in response to these risks. Escalation strategies for these vehicles have included language regarding the increased risk posed to the vehicle owner delivered through specialized communication channels such as vehicle owner canvassing, dedicated case handler phone outreach, and certified mail using multiple data sources to identify the correct owner and contact information associated with these vehicles.

Affected vehicle manufacturers need to be vigilant in the identification of additional inflator types that can develop heightened risk profiles as the inflators age, and should employ the same level of escalation used with other high risk inflators for such categories. They should also continue to focus on developing new techniques to accelerate these recall repairs.

IV. CONCLUSION

Affected vehicle manufacturers have developed innovative techniques to remove defective Takata airbags from affected vehicles and collaborate with each other, NHTSA, the Monitor and various third-party stakeholders. The unique public and private partnership created by this Monitorship has been unprecedented.

The strategies used by affected vehicle manufacturers with the highest completion percentages are well known by all of the affected vehicle manufacturers. The effect of combining these strategies demonstrates that repairing or otherwise accounting for 100% of the inflators affected by the Takata recalls is possible. These strategies have been shared through eleven Takata OEM Summits, this report and prior iterations thereof, and through regular interaction between the manufacturers, NHTSA and the Monitor. As an industry, the affected vehicle manufacturers in the Takata recalls have come to realize the importance of effective data and communication strategies that evolve over time based on analysis and research of the unrepaired vehicle owner population. Enhanced delivery techniques such as oversized letters, signature-required delivery and creative, and sometimes intense, imagery and language, have all been shown to accelerate Takata recall completion percentages. It is important that affected vehicle manufacturers develop comprehensive Takata recall repair accommodation strategies such as free mobile repair, loaner vehicles, vehicle towing and other offerings to overcome the inconvenience associated with completing a Takata recall repair. These accommodations must be prominently and clearly communicated so that vehicle owners are aware of their availability. The use of dedicated case handlers and canvassing agents who identify and work with vehicle owners to complete Takata recall repairs provide a personal means of communication and opportunity to correct any prior misconceptions affected vehicle owners may have of the Takata recalls and can be particularly effective for those vehicle owners who have been targeted with many prior communications but have not had the recall repair completed. Franchised dealers represent an opportunity to scale successful Takata recall repair initiatives but affected vehicle manufacturers must ensure dealers are provided with the resources needed to overcome challenges from expanding Takata recall repair accommodations and outreach to vehicle owners. Finally, third-party stakeholders have been shown to be both willing and effective partners at accelerating Takata recall completion percentages. Affected vehicle manufacturers must continue to engage with them to demonstrate a streamlined approach to engagement that minimizes disruption and resources required of the third-party stakeholder, while maximizing recall repairs for affected vehicle manufacturers.

With these strategies having been developed, tested and shared among the manufacturers, the tools needed to maximize Takata recall completion percentages are available, and the foundation on which to develop further recall repair acceleration strategies is well established.