

**STATEMENT OF  
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TRAFFIC SAFETY ADMINISTRATION**

**Before the**

**COMMITTEE ON ENERGY AND COMMERCE  
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS  
U.S. HOUSE OF REPRESENTATIVES**

**Hearing on**

*The GM Ignition Switch Recall: Why Did It Take So Long?*

**April 1, 2014**

Chairman Murphy, Ranking Member DeGette, and members of the Committee:

Thank you for the opportunity to appear before you today to discuss the recall process of the National Highway Traffic Safety Administration (NHTSA) and the General Motors (GM) ignition switch recall.

Let me begin my testimony by saying, on behalf of everyone at NHTSA, that we are deeply saddened by the loss of life in vehicle crashes involving the GM ignition switch defect. Our deepest sympathies are with the families and friends.

It is this kind of tragedy that our defects investigation team works long hours trying to prevent. Our core mission to save lives and prevent injuries on America's roadways is something we take very seriously, whether we are trying to curb dangerous driver behavior, improve the safety of vehicles, or find safety defects and ensure that automakers correct them.

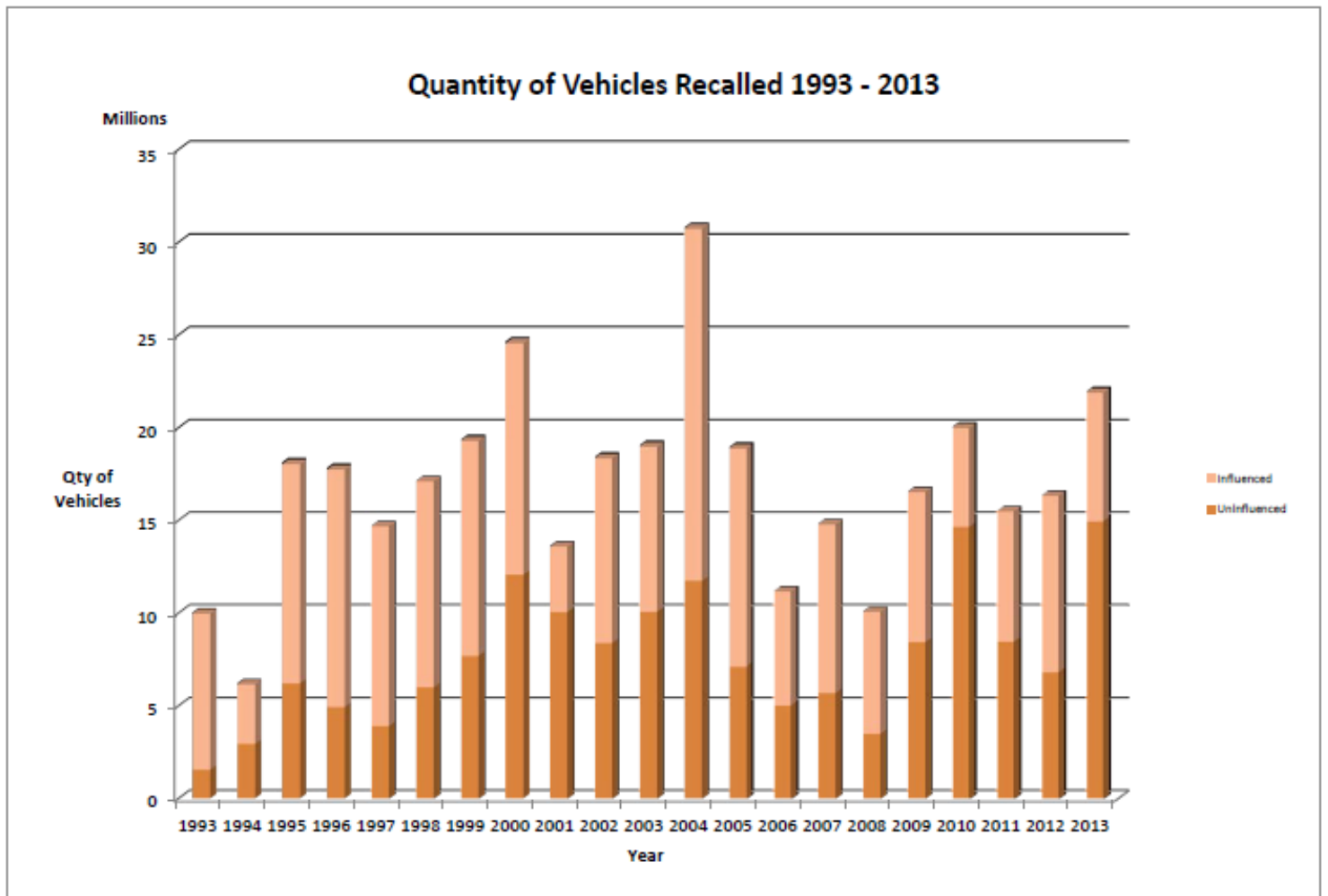
In today's testimony, I will give you an overview of NHTSA, who we are and what we do. I will go over the agency's defects investigation and recalls process that have led to thousands of recalls of millions of vehicles. Next, I will discuss where we are on each of three key priorities regarding this case.

Our first priority is the recall; we need to ensure that GM gets the vehicles fixed quickly and that it is doing all it can to keep consumers at risk informed and to identify all vehicles that may have a defective ignition switch. Second, we are pursuing an investigation of whether GM met its timeliness responsibilities to report and address this defect under Federal law—an investigation that will end with holding GM accountable if it failed in those responsibilities. Third, we are

examining the new facts and our efforts in this case to understand what took place and to determine how to continue to improve our efforts.

NHTSA has an aggressive and effective defects investigation program with staff who is deeply and personally dedicated to their mission, often working nights and weekends in pursuit of potential defects. That work has resulted in thousands of recalls involving hundreds of millions of vehicles and items of motor vehicle equipment, which have helped to protect millions of consumers from unanticipated safety hazards in their vehicles (**Figure 1**).

**Figure 1. Total Number of Vehicle Recalls, 1993-2013**



Based on our review of NHTSA’s actions concerning airbag non-deployment in the recently recalled GM vehicles, we know the agency examined the available information multiple times using consumer complaints, early warning data, special crash investigations, manufacturer information about how air bags function, and other tools, but did not find sufficient evidence of a possible safety defect or defect trend that would warrant opening a formal investigation. This

was a difficult case pursued by experts in the field of screening, investigations and technology involving airbags that are designed to deploy in some cases, but not in cases where they are not needed or would cause greater harm than good. GM had critical information that would have helped identify this defect. With that and other information in hand, we can look for lessons learned from this experience that may further improve our process.

### **An Overview of NHTSA and its Mission**

NHTSA is not a large agency. We currently have 591 employees. The President's budget for fiscal year 2015 requests \$5.2 million for additional staff to help strengthen our ability to address the enormous safety mission that this agency faces.

NHTSA is a data-driven organization that approaches highway safety by considering both the behavioral and the vehicle aspects of crashes. Human behavior remains the leading cause of highway crashes and deaths, so NHTSA places an emphasis on reducing impaired driving, encouraging seat belt use at all times, and underscoring the dangers of distracted driving. These programs have shown enormous success over the years in driving down the number of deaths involving alcohol and driving up the percentages of vehicle occupants who wear seat belts. More work, however, is required, as nearly one-third of fatalities involve alcohol and more than half involve an unbelted occupant.

As those efforts seek to change human behavior, NHTSA's vehicle safety program focuses on ways to save lives through safety improvements to vehicles, ensuring that vehicles meet all safety standards, and eliminating vehicle defects that pose an unreasonable risk to safety.

Our research and rulemaking priorities concentrate on finding the areas of highest risk where new or amended vehicle standards can make a significant impact on reducing the death toll on our nation's highways. In 2012, there were 5.6 million police-reported crashes in America, and tragically, 33,561 Americans died in fatal crashes. Because we know that most fatal crashes are caused by human behavior, and we know that vehicles are driven and controlled by humans who will make errors, we must continue to find more ways to protect drivers and passengers when crashes happen. NHTSA's regulation of occupant crash protection has resulted in significant improvements in the crashworthiness of today's vehicles. These standards have saved many thousands of lives and prevented countless injuries. Highway fatalities over the past five years are at lows not seen since 1950. NHTSA has also used its vehicle crash ratings to inform consumers and motivate vehicle manufacturers to voluntarily improve the safety of their vehicles above the federal standards. This New Car Assessment Program (NCAP), known generally as the government's 5-star safety rating program, has been an overwhelming success in driving improvements in vehicle safety. NHTSA was the first vehicle safety agency in the world to implement such a program. Today, these programs have been implemented around the world.

Fatal crashes where a vehicle problem is a cause or contributing factor are relatively rare in comparison to crashes caused by human factors in properly functioning vehicles. But such cases receive significant scrutiny because NHTSA requires that automakers sell vehicles that meet specific safety standards and that they find and fix defects as soon as they are aware of them. As a result, we invest significant effort to find those problems through NHTSA's vehicle safety enforcement program.

For vehicles and vehicle equipment in the U.S., manufacturers must certify that their products meet applicable Federal Motor Vehicle Safety Standards (FMVSS). The Office of Vehicle Safety Compliance (OVSC) tests a sample of new vehicles and equipment each year to determine whether they meet those standards. If the vehicles or equipment do not comply, manufacturers must recall them and provide a remedy to the consumer.

The Office of Defects Investigation (ODI) has a different mission. ODI searches through consumer complaints, manufacturer data, data from NHTSA's National Center for Statistics and Analysis (NCSA), special crash investigations, and other sources for information that might indicate the presence of a defect or defect trend. Where it can find a possible defect or defect trend posing an unreasonable risk to safety, it investigates. If NHTSA can demonstrate that a defect exists and that it poses an unreasonable safety risk, the agency can order a recall.

NHTSA's ability to influence or order recalls is its greatest strength in safeguarding against problems in the vehicles traveling our roads today. Since 2000, NHTSA has influenced, on average, the recall of nearly 9 million vehicles every year, as well as millions of items of equipment, for safety related defects.

## **An Overview of the Defects Investigation and Recall Process**

### *Defects Investigations*

Each potential defect investigation is unique and dependent on the data gathered in each case. NHTSA uses a number of tools and techniques to gather and analyze data and look for trends that warrant a vehicle safety investigation, and possibly a recall. These tools include customer complaints to NHTSA, early warning data, as well as other sources that might provide related information, such as crash investigations and industry-related websites. Additionally, the law requires manufacturers to inform NHTSA within five business days of any noncompliance or defects that create an unreasonable risk to safety. They are then required to initiate a recall to remedy the defect and notify affected consumers.

NHTSA's defects investigation office, ODI, has a staff of 51 people. Their goal is to find possible defects or defect trends that may indicate significant safety risks in particular makes,

models, and model years; determine whether there is an unreasonable safety risk apparently being caused by a defect; and, if so, persuade—or require—the manufacturer to conduct a recall. The staff also performs other important functions, such as responding to inquiries and tracking the hundreds of recalls that occur each year. That entails monitoring quarterly reports on completion rates, ensuring the scope of the recalls is correct, and compiling information on recalls for the public.

The defects investigation process begins with the screening of incoming information for evidence of a potential safety defect. Complaints from consumers are the primary source of information. NHTSA receives over 45,000 complaints a year through *SaferCar.gov* and the Vehicle Safety Hotline, and reviews each one promptly. Human eyes review every single complaint. Follow-up is sometimes required to get additional information, and in cases of interest, NHTSA staff will contact the complainants directly to obtain clarifying information. Screeners also look at technical service bulletins issued by manufacturers, reports of foreign recalls, crash investigations done by NHTSA's Special Crash Investigations office, and supplemental information such as occasional reports from insurance companies and information available on the Internet. When appropriate, the screeners consult NHTSA's crash databases, including the Fatality Analysis Reporting System (FARS) and National Automotive Sampling System (NASS). Also, members of the public may file petitions asking NHTSA to investigate and order a recall on a particular matter. The agency carefully reviews each petition before making a decision on whether to grant or deny it. If granted, a formal investigation is opened. Since 2004, the agency has opened 980 investigations. These safety defect investigations have resulted in 1,299 recalls involving more than 95 million vehicles, equipment, tires, and child restraints, which have helped reduce vehicle fatalities to historic lows. For example, a NHTSA investigation recently led to the recall of over 4 million child safety seats and is still underway regarding the possible recall of infant seats.

Another important source of information is Early Warning Reporting (EWR) data submitted quarterly by manufacturers of vehicles, tires, and child seats. For light vehicle manufacturers, the data include counts of property damage claims, warranty reports, consumer complaints, and field reports, which are efforts by the automaker to look into specific incidents. These aggregate data are broken down by make, model, and model year and by component category (e.g., steering, braking, engine, speed control). Manufacturers must also submit brief reports on each claim against the company for death or injury allegedly related to a possible vehicle defect. The volume of the data received is enormous. NHTSA uses sophisticated data mining techniques to identify trends in the data that may be evidence of a safety defect. When potential trends are found, the EWR division can make a referral to the team involved in the screening process.

Those who screen NHTSA's various sources of information are in constant communication and support each other in their efforts to identify potential defect issues. When patterns emerge from any source, the screeners look very carefully at what may be behind the patterns. Where there is

possible evidence of a defect trend, the screening staff recommends that the appropriate investigating division consider opening an investigation. ODI staff meets regularly to determine which recommendations warrant opening an investigation and which may warrant continued monitoring. With preliminary evidence and 16 investigators, ODI must analyze all of the fact patterns and discern whether potential defects likely involve more serious risks or are likely to reveal a defect trend.

If it is determined that an investigation is warranted, a preliminary evaluation begins. This often entails detailed interviews with complainants, requesting relevant information from the manufacturer, and analysis to determine whether there is sufficient evidence either to seek a recall or continue to a more in-depth investigation. If it is determined that sufficient evidence exists, the next stage is the engineering analysis, which involves gathering additional information from consumers and the manufacturer, perhaps testing of vehicles or equipment by NHTSA's Ohio based test facility, surveys of peer vehicle experience, and further in-depth analysis of the underlying problem.

If, at any stage, ODI staff believes there is enough information to determine that a specific defect exists and that it creates an unreasonable risk to safety, they urge the manufacturer to conduct a recall. Where the manufacturer is not persuaded by NHTSA to undertake a recall, NHTSA's Associate Administrator for Enforcement may issue an initial decision requiring that the manufacturer conduct the recall. Following the initial decision, NHTSA convenes a public meeting in which interested parties—including the manufacturer, consumers, suppliers, public interest groups—may provide testimony. The manufacturer is given another opportunity to submit comments on the testimony heard at the public meeting. If, after review of all the information generated by the administrative process, the Administrator concludes that a recall should occur, the Administrator issues a recall order. A recall order is not self-enforcing. If the manufacturer does not follow the order, NHTSA would seek enforcement. To prevail in court, NHTSA must be able to prove that a defect exists and that the defect creates an unreasonable safety risk.

Manufacturers generally adhere to their legal duty to identify non-compliance or safety defects and initiate recalls, but the NHTSA investigation process helps to ensure that these steps are occurring and to recognize when they are not. Over the last 10 years, manufacturers have recalled more than 83 million vehicles for safety defects where NHTSA has not investigated, and have recalled over 86 million additional vehicles based on NHTSA's defect investigations. No other country has a defects investigation program of this scope.

## *Recalls*

When a manufacturer recalls a vehicle at NHTSA's urging during or after an investigation, we call it an "influenced recall." Whether a recall is influenced or not, the recall process is the same. When a manufacturer recalls a vehicle model or vehicle equipment, the manufacturer files a defect information report with NHTSA under 49 CFR Part 573, known in the industry as a "573 Report." Certain information is required in the report under 49 CFR 573.6(c), including, for example, identification of the line of vehicles or vehicle equipment under recall, the number of affected vehicles or pieces of vehicle equipment, a description of the defect, and a description of the remedy.

The regulations require manufacturers to submit the 573 report within five business days of their determination that a defect is safety related. For this reason, the 573 report must also include a chronology of events that led to the recall decision. NHTSA reviews every recall to ensure that the manufacturer has met its obligation to inform the agency of safety-related defects or to make a timely decision that its products contain a safety defect. If indications show that it has not, NHTSA may open another investigation called a Timeliness Query (TQ) to collect additional relevant information. This Administration has placed an emphasis on timeliness in order to safeguard the integrity of the process and encourage automakers to aggressively pursue potential safety defects. Since 2009, automakers have paid record fines totaling more than \$85 million for lack of timeliness in reporting vehicle safety defect issues to NHTSA. Because of this emphasis, we believe that all manufacturers in the automobile industry are now paying much closer attention to their responsibility to protect their customers and the driving public.

Upon receipt of a 573 report, NHTSA enters it to NHTSA's Artemis database as ODI. Investigators screen it for completeness, proper scope, timeliness, and effectiveness of the proposed remedy. NHTSA sends an acknowledgement letter and recall summary to the manufacturer, requesting the manufacturer to supply any missing information. NHTSA posts each new recall on its website at *SaferCar.gov*.

Under 49 CFR Part 577, manufacturers are required to notify owners of vehicles and vehicle equipment under recall. The "577 letter" must state that the manufacturer has determined that there is a safety defect in a vehicle or piece of vehicle equipment that the consumer owns. It must provide information about where and when a remedy to the defect can be acquired, and it must inform the consumer that the remedy will be provided by the manufacturer free of charge.

The manufacturer must then track how many of the items under recall receive the remedy ("recall completion") and report the numbers to NHTSA for six quarters. NHTSA uses these numbers to later calculate a completion rate analysis and work with manufacturers where the completion rate is below average.

We believe our defects investigation program and recalls process has functioned extremely well over the years in identifying defects that create unreasonable risks and ensuring that recalls occur whenever appropriate. Even so, we continually seek ways to improve. In 2011, the Department of Transportation's IG reviewed the ODI investigation process and issued 10 recommendations for improvement. In response to actions taken and/or information provided by the agency, the IG has closed nine of the 10 recommendations and we are in the process of finalizing our report to the IG addressing the remaining recommendation which concerns developing a staffing model. A list of the recommendations is attached (**Attachment 1**).

In addition to implementing the IG recommendations, ODI has taken steps to further improve its ability to find defects. One recent improvement is the deployment of a new Business Intelligence and Natural Language Processing suite focused on our consumer complaints, which helps supplement the human review process and has expanded our ability to harvest data and identify defect trends. Even after implementing this software and all of the IG's recommendations, we will continue to look for ways to make our processes more effective.

### **An Overview of NHTSA's Special Crash Investigation (SCI) program**

NHTSA's Special Crash Investigations (SCI) Program provides in-depth crash data ranging from basic information obtained from routine police and insurance crash reports to comprehensive data from reports by professional crash investigators. Hundreds of data elements relevant to the vehicle, occupants, injury mechanisms, roadway, and safety systems involved are collected for each of more than 130 crashes studied annually.

SCI investigations are quite different from ODI defects investigations. While defects investigations look for defect trends in a line of vehicles or vehicle equipment, SCI investigations provide data and observations associated with a specific incident that are useful for examining new, emerging, and rapidly changing technology, including the safety performance of alternative fueled vehicles, child safety restraints, adapted vehicles, safety belts, air bags, vehicle-pedestrian interactions, and potential safety defects. SCI investigators locate and analyze unique real-world crashes to generate data that can be used to improve the performance of automotive safety systems. This information may be helpful to NHTSA's research and rulemaking offices in considering possible new or amended standards, to ODI in considering whether to investigate an issue or in support of an ongoing investigation, or to industry and other interested observers. Cases of interest are selected from a diverse network of sources, including NHTSA's Auto Safety Hotline, the Department of Transportation's National Response Center, NHTSA's regional offices, NASS FIELD Offices, automotive manufacturers, other government agencies, law enforcement agencies, engineers, and medical personnel.

Professional crash investigators obtain data and take photographs of the crash sites. They locate the vehicles involved, photograph them, measure the crash damage, and identify interior locations that were contacted by the occupants, and if equipped, obtain the Event Data Recorder



(EDR) data for evaluating safety system performance. The investigators follow up their on-site investigations by interviewing crash victims and other involved parties, and by reviewing medical records to determine the nature and severity of injuries. Each investigation provides extensive information about pertinent pre-crash, crash, and post-crash events involving the occupants, vehicles, rescue, and environmental factors, which may have contributed to the event's occurrence or severity. Included in each report is an analysis and determination of the occupant kinematics and vehicle dynamics as they occurred throughout the crash. The reports provide detailed performance evaluations of the air bag, the use of seat belts, and any other safety features.

### **NHTSA and DOT's Current Efforts on GM's Recall**

#### *GM's Recall*

GM reported this defect and initiated its recall on February 7, 2014. As of March 28, 2014, the GM recall currently covers approximately 2.1 million vehicles, including the 2005-2007 Chevrolet Cobalt, 2007 Pontiac G5, 2003-2007 Saturn Ion, 2006-2007 Chevrolet HHR, 2006-2007 Pontiac Solstice and 2007 Saturn Sky vehicles. NHTSA is working to ensure that GM has accounted for the full scope of vehicles that may be covered by the recall, is ensuring that consumers receive the needed remedy as soon as possible, and is providing consumers information and resources essential to keep them safe until the vehicles can be fixed. GM has indicated to dealers that it expects to have parts on or about April 7 and will notify consumers that it can begin scheduling repairs soon after that date. Given the number of vehicles, the repairs may take several months to be completed.

At this time, NHTSA urges owners and drivers to follow GM's recommendation to "use only the ignition key with nothing else on the key ring" when operating the vehicle, contact GM about added resources available to keep themselves safe, and seek the permanent repair remedy from GM as soon as replacement parts become available.

#### *NHTSA's Timeliness Investigation*

GM first provided NHTSA a chronology of events on February 24, 2014. The information in GM's chronology raises serious questions as to the timeliness of GM's recall. As a result, on February 26, NHTSA opened its present investigation, a timeliness query. On March 4, to obtain more detailed information than GM provided in its recall notification letter, NHTSA issued a special order seeking answers and documents, submitted under oath, to questions relevant to how quickly GM acted on information about the defect. GM's response is due to NHTSA on April 3.

NHTSA is a data driven organization and we will take whatever action is appropriate based on our findings, including issuing civil penalties of up to the statutory limit of \$35 million.

## *NHTSA and DOT's Processes*

NHTSA and DOT's Office of General Counsel (OGC) are currently engaged in a continuous improvement and due diligence process regarding past efforts on airbag non-deployments in GM vehicles under its ignition switch defect recall. Secretary Foxx recently requested the Department of Transportation Inspector General to initiate an agency audit in connection with the GM recall. These efforts will ensure that DOT and NHTSA have a full understanding of the facts regarding the GM recall and can take corrective actions to enhance NHTSA's safety function to the extent necessary and appropriate. These processes will also benefit from any findings from NHTSA's timeliness investigation, which may shed light on what additional information NHTSA could have had in evaluating airbag non-deployments in this case.

### **NHTSA's Past Efforts on Airbag Non-Deployments in the GM Vehicles**

NHTSA's timeliness investigation and joint due diligence review with OGC are ongoing, and the DOT OIG audit is pending, so any understanding of NHTSA's past efforts is preliminary at this time. We are not aware of any information to suggest that NHTSA failed to properly carry out its safety mission based on the data available to it and the process it followed. NHTSA examined the available information multiple times using consumer complaints, early warning data, special crash investigations, manufacturer information about how air bags function, and other tools, but did not find sufficient evidence of a possible safety defect trend that would warrant opening a formal investigation. This was a difficult case pursued by experts in the field of screening, investigations and technology involving airbags that are designed to deploy in some cases but not others. GM had critical information that would have helped identify this defect.

What follows is an outline of our current understanding of NHTSA's past efforts and related background information.

#### *Background on Advanced Airbags*

Airbags are a vitally important, supplemental restraint system used to mitigate injuries and death in the event of a crash. The term "supplemental" is used with regard to airbags because it enhances the protection of the seat belts, which are the primary occupant restraint system in a vehicle. NHTSA estimates that in 2012, 2,213 lives were saved by frontal air bags, adding to the estimated 12,174 lives saved by seat belts. Between 1986 and 2012, frontal air bags are estimated to have saved almost 37,000 lives.

Advanced airbags are not intended to deploy in all crashes, even frontal crashes. Advanced airbag systems are designed not to deploy when doing so will cause more harm than good. Smaller occupants who sit closer to the airbag are at risk as are unrestrained occupants, because those occupants will move closer to the airbags during the course of a crash, putting them at risk of being hit with the force of a rapidly expanding bag. Airbags also may not deploy during crashes that occur off-road with multiple minor impacts because such minor impacts involve

much slower changes in speed than on-road vehicle-to-vehicle crashes. Even on-road, airbags may not deploy if the crash was not severe enough to warrant the supplemental protection.

Advanced airbags began to be introduced in the 2004 model year in response to a May 2000 NHTSA rule intended to reduce injuries and deaths resulting from previous airbag designs. These prior designs presented risks to smaller occupants and infants in rear-facing car seats placed on the front passenger seat. Advanced airbags factor in additional data to determine when to deploy, such as the size of the individual, the change in velocity, location of the individual within the vehicle, and whether the occupants are belted.

#### *Special Crash Investigations Regarding Vehicle Subject to the GM Recall*

The Model Year (MY) 2005 Chevrolet Cobalt was among the first vehicles equipped with advanced airbag features, although the Cobalt's advanced airbag system was not certified as such by GM until 2006.

In 2005, a fatal crash in Maryland came to the attention of our SCI team. SCI investigated the Maryland accident as well as two others involving MY2005 Cobalts, one in Wisconsin in 2006 and one in Pennsylvania in 2009. All three crashes, tragically, resulted in the deaths of unrestrained occupants. All three also involved airbags that did not deploy and event data recorder (EDR) information indicating the vehicle power was in an accessory position. (When a vehicle is in an accessory position, certain features, or accessories, such as the radio are powered, but others remain off to prevent the vehicle's battery from being drained.) The 2005 and 2006 crashes involved vehicles exiting the roadway and striking trees. The 2009 crash involved being struck by an oncoming vehicle in the wrong lane.

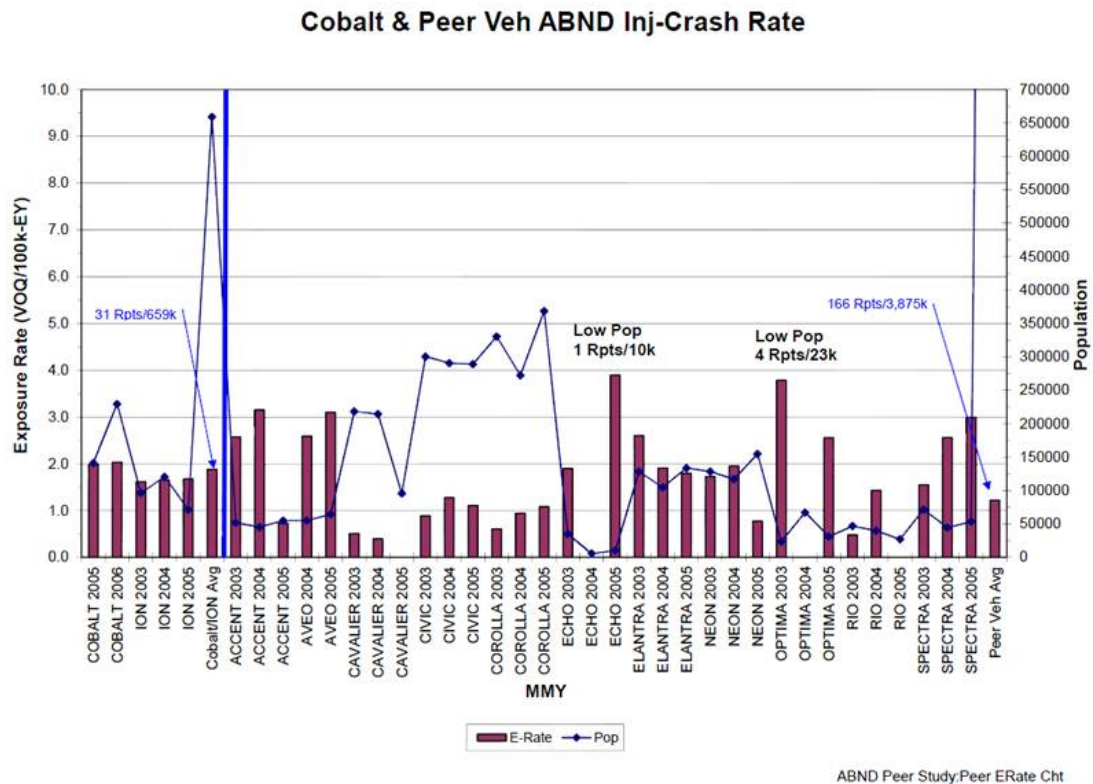
#### *Office of Defects Investigation Activities Regarding the Subject Vehicles*

As the SCI team examined these individual crashes, NHTSA reviewed other sources of available data to determine whether a problem existed related to airbag non-deployment in certain GM vehicles. In particular, NHTSA's early warning division (EWD) collected and reviewed available data on airbag non-deployment in Cobalts. After receiving early warning data from GM, and searching through available information sources, EWD identified 43 incidents where airbags may not have deployed in a crash. As a result, in 2007, EWD referred the case to NHTSA's data analysis division (DAD) for further screening.

Following this referral, DAD reviewed data on non-deployment of airbags in the Cobalt and Ion. In connection with this evaluation, DAD considered a variety of sources of data, including complaints concerning alleged non-deployments and available information concerning the relevant special crash investigations described above. During the course of this evaluation, NHTSA brought the airbag non-deployment issue to the attention of GM on at least one occasion.

A defects assessment panel convened in 2007 to review the available information on non-deployment of airbags in the Cobalt and Ion, considering vehicle owner questionnaire (VOQ) complaints reporting non-deployments, early warning data, SCI investigations, and the circumstances of the crashes. The data available at the time of this evaluation did not indicate a safety defect or defect trend that would warrant the agency opening a formal investigation. In particular, the available data did not indicate that the Cobalt or Ion were overrepresented compared to other peer vehicles with respect to injury-crash incident rates (**Figure 2**). Moreover, the crash data available to NHTSA included incidents involving unbelted occupants and off-road, long-duration events, where it could not be determined that the air bag should have deployed.

**Figure 2. 2007 NHTSA Chart of Airbag Non-Deployment Injury-Crash Incident Rates**

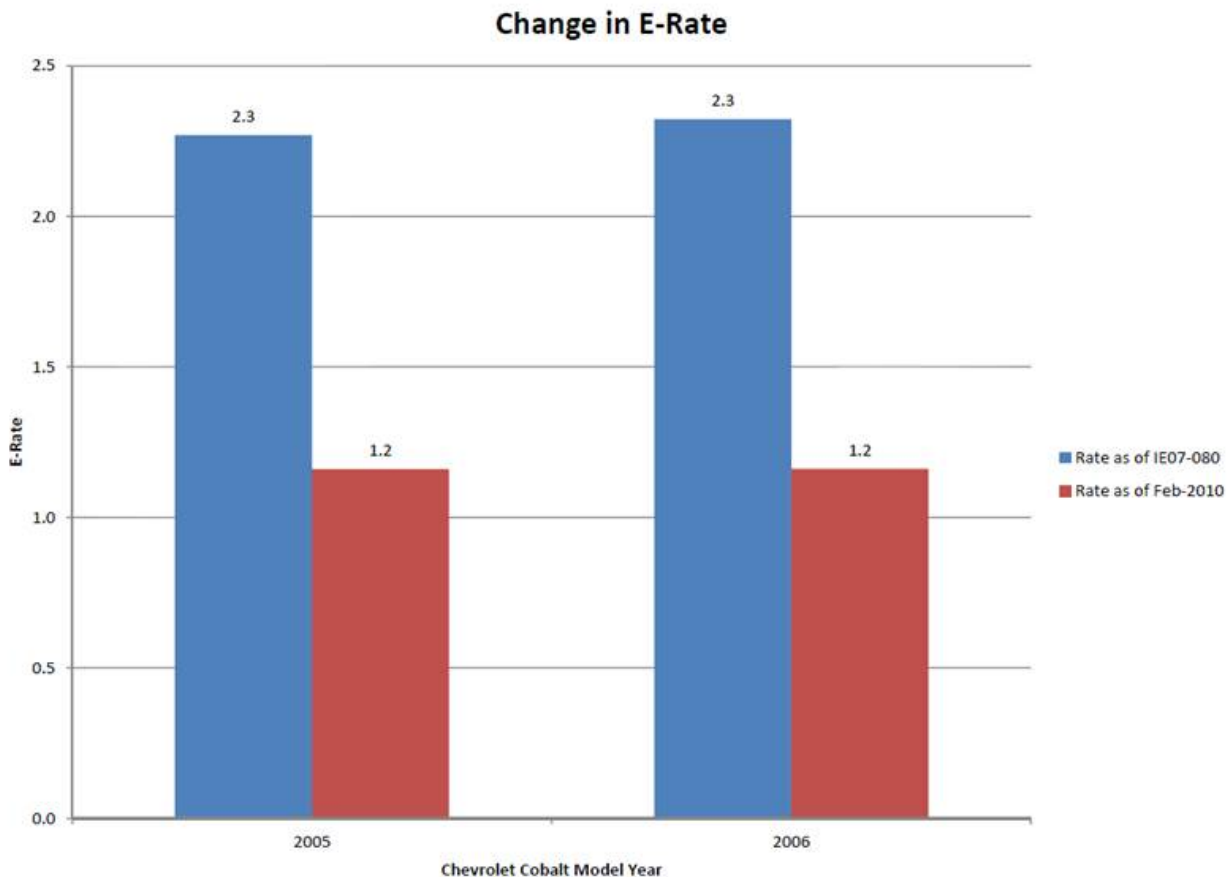


Against this backdrop, NHTSA continued to monitor the performance of the Cobalt in frontal crashes, including EWR information, consumer complaints, and one additional SCI report. Again in 2010, NHTSA reviewed cumulative data on consumer complaints for data the airbag non-deployment rate of Cobalts (**Figure 3**). The data showed that the injury-crash incident rate for Model Year 2005 and 2006 Cobalts had decreased by nearly half since the 2007 review and did not provide a basis for a formal investigation.

At the time of these reviews, NHTSA did not have the information that GM has since provided—for instance, new evidence linking airbag non-deployment to faulty ignition

switches—which is why we have launched an aggressive investigation into the timing of their recall.

**Figure 3. 2010 NHTSA Chart of Airbag Non-Deployment Injury-Crash Rates**



### *Critical Issues Regarding ODI Work and the Subject Vehicles*

In evaluating the potential for a defect or defect trend, ODI relies on expertise regarding the technology and the dynamics of the incidents involved. In this case, ODI was looking for a defect or defect trend regarding airbag non-deployment in circumstances where it appeared a deployment should have occurred. At the time, ODI did not have clear evidence of a connection between the ignition switch being in the accessory mode and the airbag non-deployment.

Our understanding at the time was that airbag systems were designed to continue to function in the event of power loss during a crash, which is not uncommon. ODI's understanding of airbag systems, which was verified by available GM service literature reviewed during our due diligence effort, was that an airbag system would be armed and ready to fire for up to 60 seconds after all power to the system was cut off. At the time ODI was evaluating whether to open an

investigation, the two SCI reports showed indications of power loss and identified the vehicle power mode as accessory. The preliminary SCI report on the 2006 Wisconsin crash did identify the issue of the ignition switch being in the accessory position, raising the possibility of an issue, but concluded that, “At this point, it appears the yielding of the tree may have been the likely cause of the non-deployment.” The final report produced in 2008 identified both the yielding nature of the impact and power loss due to movement of the ignition switch prior to impact as potential causes of non-deployment, but removed any conclusion as to which was the likely cause. However, due to the timing of the report and investigation, the final version of the report was not complete prior to the determination of whether or not to open an investigation.

As noted previously, advanced airbags are designed to deploy in some cases, but not in others. The two SCI cases used in making the 2007 determination of whether or not to open an investigation included unrestrained occupants in vehicles that exited the roadway and struck yielding objects before rapidly decelerating and coming to rest. These situations, where unrestrained occupants may be out of position, are instances where airbags are less likely to deploy because doing so may harm the occupants.

When data available to NHTSA reveals a basis to investigate a potential risk to motor vehicle safety, the agency takes decisive action. Over the last 10 years, NHTSA investigations have influenced 35 recalls related to airbags involving 6.5 million vehicles, including 18 recalls of 3.5 million vehicles specifically involving non-deployment. In those cases, information available to NHTSA demonstrated the need to investigate.

In February 2014, GM submitted information to NHTSA that, for the first time, acknowledged a link between the ignition switch to the airbag non-deployment, as well as key information regarding parts changes, discussions with suppliers, and other efforts currently under consideration in our Timeliness Query. Had the information newly provided to NHTSA by GM been available before now, it would have better informed the agency’s prior reviews of airbag non-deployment in GM vehicles and likely would have changed NHTSA’s approach to this issue.

## **Conclusion**

NHTSA’s dedicated and professional staff works to monitor and secure the safety of the U.S. automotive fleet. The work that they do saves lives on a daily basis, and the importance of that work cannot be overstated. NHTSA continually seeks new ways to improve our processes. We are reviewing the events leading up to this recall to see if there are areas that can be improved. We are looking to improve our understanding of the way that various manufacturers design airbags to function when the vehicle loses power, considering whether we need to improve the use of Special Crash Investigation (SCI) in our defects screening process, reviewing ways to better incorporate information about remote defect possibilities into the investigative process, and evaluating our process for engaging manufacturers around issue evaluations.

I greatly appreciate the opportunity to testify before you today. I believe it is important that the Members, and the American public, have a better understanding of the vitally important safety work that we do at NHTSA. I look forward to your questions.

## Attachment #1

Office of Inspector General Audit Report:  
**PROCESS IMPROVEMENTS ARE NEEDED FOR IDENTIFYING AND  
ADDRESSING VEHICLE SAFETY DEFECTS**

National Highway Traffic Safety Administration  
Report Number: MH-2012-001  
Date Issued: October 6, 2011

### **RECOMMENDATIONS**

We recommend that the National Highway Traffic Safety Administrator:

1. Revise the pre-investigation processes to ensure that the review of each complaint is recorded and that complaints are tracked to associated investigations in Artemis.
2. Establish pre-investigation processes for retaining and storing pre-investigation records, such as investigation proposals and insurance company data.
3. Require that decisions made and actions taken by ODI Defect Assessment Panels are recorded, including justifications for not proceeding to investigations.
4. Establish systematic processes for determining when a third-party or the Vehicle Research Test Center should be used to verify manufacturer information or assist in identifying a potential defect.
5. Revise the ODI investigation process to require justifications for continuing or closing investigations that exceed timeliness goals for PEs and EAs.
6. Revise the ODI investigation process to establish criteria for documenting evidence, such as associated complaints, meetings with manufacturers and other stakeholders, and third-party analysis or testing conducted.
7. Strengthen ODI's redaction policy and process to better protect consumers' personal information from public availability, such as by using automated redaction software.
8. Conduct a workforce assessment to determine the number of staff required to ensure that ODI meets its objectives and determines the most effective mix of staff.
9. Develop a formal training program to assist ODI staff in acquiring the knowledge and staying abreast of ODI processes and current and new automobile technologies.
10. Develop and implement a strategy for increasing coordination with foreign countries to enhance ODI's ability to identify safety defects and to exchange information on foreign recalls.