Testimony of Carl Wilcox, P.E., FOR

LD 320 An Act to Repeal Certain Motor Vehicle Inspection Requirements

April 15, 2025

Dear Senator Nangle and Representative Crafts and honorable members of the Transportation Committee.

My name is Carl Wilcox, I'm a resident of Minot. I was born and raised in Maine and have lived in Maine for all but 7 of my 63 years. I am a Maine licensed professional environmental engineer, with over 35 years of experience.

I am **For LD 320**. The entire motor vehicle safety inspection should be terminated. Its elimination is long past due. Its continued existence promotes and supports corruption and does nothing to improve auto safety.

In the early 1980s I attended engineering school in Indiana. I distinctly recall driving down the road listening to the radio, learning that Indiana was eliminating its vehicle safety inspection program because the program made no statistical difference in accident reduction. The state of Indiana came to that conclusion nearly 40 years ago. So have thirty-six other states with I believe Texas being the latest to drop vehicle safety inspections. Meanwhile, Maine continues to burden its citizens with this useless, expensive and corrupt program.

As for all these referenced studies that support continuation of auto safety inspections, follow the money. The study author, or the funding entity has a financial interest in continuing auto safety inspections.

The definitive study on causation of motor vehicle accidents is the scientifically designed study conducted from 2005 through 2007 by the US Department of Transportation, National Highway Traffic Safety Administration (NHTSA), reported in “Critical Reasons for Crashes Investigated in the National Motor Vehicle Crash Causation Survey, A Brief Statistical Summary”, DOT HS 812 506, March 2018.

Please take the time to read this attached 3-page summary of a scientific study done by an agency with its purpose to improve highway safety that has no financial interest in the results.

The results of the 5,470 accidents that were studied for critical causations represent an estimated 2,189,000 crashes nationwide were:

- 96% of accidents are due to driver error of which NHTSA breaks down into 4-sub categories with the greatest sub-category being recognition error resulting in 41% of the 96% crashes.
- 2% were attributed to the vehicle’s condition.
- 2% to the environment (weather).
- 2% the causation was undetermined.

Please recall the above statistics are from a nationwide study in which the vast majority of states and the population are not subject to private vehicle safety inspection programs.

NHTSA 3-Year Accident Causation Study Results:

96% of accidents are due to driver error.

2% of auto accidents nationwide are due to the mechanical condition of the vehicle.

It is a waste of resources to focus on 2% of the problem when 96% of the problem is the driver.

- Limiting the sale of single-container brewed products to 16 ounces or less would be a great start. Anheuser Bush's 25-ounce 8.0% alcohol by volume Natty Daddy beer has the equivalent alcohol of 3.3 - 12 oz (40 total ounces) Budweiser.
- Or, require all stores selling chilled alcohol containing projects to place a sticker on every cooler door with the number of alcohol related deaths and injuries the prior year.
- Utah has the lowest auto accident fatality rate in the nation. At 0.05 percent it also has the lowest blood alcohol limit.
- Or, since the driver is the cause of 96% of accidents, require everyone annually watch an on-line 15-minute driver safety video followed by a short quiz. If they don't have a smart phone or computer, they can go to their local

library. If they don't do it – fine. If they get into an accident or are pulled over, they are ticketed for failure to take the annual test. An annual test will be more convenient than the current take time off of work to get your vehicle inspected.

Maine's private vehicle safety inspection program employees 8 field inspectors and two office administrative staff. Those 10-people could be doing nearly anything else that would be far more productive in making our roads safer than continuing to implement Maine's private vehicle safety inspection program.

I don't know if these 8-inspectors are state police officers or not. I would not be surprised if they are. It has been reported within the last few months that the State's shortage of state police officers results in officers receiving over $100,000 annually in overtime pay in addition to their salary. If you want to lower Maine's tax burden, terminate auto safety inspection and move these eight officers into highway patrol.

I could go on for pages from personal experience of how corrupt the current auto safety inspection program is. I will spare you that. In closing I will tell you the following story about Maine's emission inspection program that is limited to Cumberland County.

For 54-years I lived in New Gloucester, in northern Cumberland County. I could see Androscoggin County from by kitchen window.

In the 1990s, portions of Maine were in non-attainment with the Clean Air Act for ozone. The ozone smog was mostly the result of auto emissions from southern New England and the New York City area that entered coastal Maine with the prevailing winds.

In response Maine implemented the Car Test program which was only needed in three heavily populated areas in southern Maine. However, to offset emissions for an expansion by the Louisiana Pacifica particle board plant in Houlton, Maine DEP implemented Car Test in 7 of Maine's 16 counties. Mainers were forced to pay a $24 fee to have your car's emissions tested and to spend up to $420 to fix the emissions issue. This financial burden was placed on the auto owner so that Louisiana Pacific would not have to install emissions reduction equipment for their expansion. As could easily be anticipated, the Car Test program became a political hot potato. Maine ended up paying Snap-On Tools, the Car Test operator, $43 million to buy out their contract to terminate Car Test.

Then Maine's air bureau took the path of lowest political impact by requiring the current annual emissions check inspection which is exclusive to Cumberland County. It is exclusive to Cumberland County not because non-attainment was limited to Cumberland County but because only Cumberland County, with the greatest population in the state, was the only county to meet the federal population limits requiring action. It was not because York, Sagadahoc, Lincoln, or Hancock Counties were in attainment. Thus, the emissions check requirement is limited to Cumberland County that includes that the engine check light is off and that the gas cap screws on tight. The emissions inspection costs an additional $6, raising the inspection fee from $12.50 to $18.50; but, the real cost is much, much greater.

Circa 2010, my 2001 minivan check engine light came on. I don't normally take my cars to the dealer but being an apparent electrical issue, I took my Cumberland County registered vehicle, to Rowe Ford in Auburn, the closest dealer which happens to also be in Androscoggin County. The service manager told me my oxygen sensor had gone bad. The van was running fine. Just the sensor had gone bad. There was no emissions problem.

The Rowe Ford, Service Manager told me that since my sensors were getting old all my sensors should be changed and it would cost more than $2,000 (in 2010 dollars). He told me I should really trade in my 9-year old van for a new one. He was surprisingly honest and told me if I lived in Androscoggin County, he could give me a sticker with my check engine light on. But because I lived in Cumberland County to pass inspection, I needed that check engine light off. I was not in the economic position to pay $2,000 for an otherwise perfectly operating vehicle to get an inspection sticker. It was particularly galling because if I lived a few miles to the north, I could have gotten a sticker for $12.50 and not spend more than $2,000 for a sticker. Rowe Ford wanted my van as a trade in. All they needed to do was wash it and put in the used car lot with a $10,000 sales sticker on it and leave the check engine light on.

So, I was sitting in my house watching every day all the vehicles from Androscoggin County driving south to work in Greater Portland and in the evening returning to Lewiston/Auburn. Every one of those vehicles could have had its check engine light on and gotten a sticker, but not my van solely because I lived a few miles inside Cumberland County.

Then a friend informed me that all one must do to clear your check engine light is to momentarily disconnect your battery which resets the monitoring computer. Schedule your inspection for Monday. Drop off the vehicle Sunday night. In the parking lot disconnect and reconnect the battery. For the check engine light to come back on, the engine must run for an hour or more for the computer to cycle through the sensors a few times. The shop completes its inspection long before an hour of engine run time. Pay your $18.50 and drive home. The check engine light typically stayed off for a day or two.

I had that minivan for another 10 years. I didn't take a multi thousand dollar hit by trading it into Rowe Ford for a new or newer vehicle. After a year or two, the check engine light went off all by itself and stayed off. I no longer had to disconnect and reconnect the battery prior to the annual inspection. My 2001 minivan was not contributing to the air emissions problem because it was manufactured after 1996.

To compound the emissions check corruption, beginning in 2008 Maine has been an attainment area for 8-hour ozone NAAQS. This was not achieved by Cumberland County's auto emissions inspection program. It was achieved by the Clinton Administration implementing the 1990 Clean Air Act amendments which phased in more restrictive air emission standards for vehicles manufactured beginning in 1994-1996. It took about a dozen years for the nation's vehicle fleet to age out pre 1994 vehicles.

Due to Maine being in attainment with the Clean Air Act, Maine since 2008 could have terminated the Cumberland County emissions check removing that burden from Cumberland County residents. But no, unlike red state Kentucky and blue state Minnesota, both of which ceased their vehicle emissions inspection when they

achieved attainment with ozone NAAQS, Maine has kept it for Cumberland County so its residents can be abused by auto dealers. Auto dealers happily take that vehicle with a check engine light on as a trade in and move to any one of the other 15 counties in Maine where it can be legally sold and stickered with the check engine light on.

A prior state representative of mine did some digging years ago. By continuing the check engine light and gas cap inspection for Cumberland County, Maine DOT gets several million dollars per year from the federal government. I hope every cent of those millions are used to reduce air emissions in Cumberland County be funding mass transit.

Maine's auto safety and emissions inspection program is corrupt as hell. Please vote for LD 320 to terminate it.

U.S. Department of Transportation
National Highway Traffic Safety Administration

TRAFFIC SAFETY FACTS
Crash • Stats

NHTSA

DOT HS 812 506 A Brief Statistical Summary March 2018

Critical Reasons for Crashes Investigated in the National Motor Vehicle Crash Causation Survey

Summary

The National Motor Vehicle Crash Causation Survey (NMVCCS), conducted from 2005 to 2007, was aimed at collecting on-scene information about the events and associated factors leading up to crashes involving light vehicles. Several facets of crash occurrence were investigated during data collection, namely the pre-crash movement, critical pre-crash event, critical reason for the critical pre-crash event, and the associated factors. In each investigated crash, these were assigned to driver, vehicle, or environment without suggesting that any of these was cause of the crash or assignment of fault to driver, vehicle, or other crash element. A sample of 5,470 NMVCCS-qualified crashes (i.e., the crashes meeting certain criteria listed in the section: Scope and Limitations of NMVCCS data) was investigated over a period of two and a half years, which represents an estimated 2,189,000 crashes nationwide. About 4,031,000 vehicles, 3,945,000 drivers, and 1,982,000 passengers were estimated to have been involved in these crashes. The critical reason, which is the last event in the crash causal chain, was assigned to the driver in 94 percent (±2.2%)† of the crashes. In about 2 percent (±0.7%) of the crashes, the critical reason was assigned to a vehicle component's failure or degradation, and in 2 percent (±1.3%) of crashes, it was attributed to the environment (slick roads, weather, etc.). Among an estimated 2,046,000 drivers who were assigned critical reasons, recognition errors accounted for about 41 percent (±2.1%), decision errors 33 percent (±3.7%), and performance errors 11 percent (±2.7%) of the crashes.

Introduction

Databases such as the National Automotive Sampling System (NASS) Crashworthiness Data System (CDS) do not provide information on pre-crash scenarios and the reasons underlying the critical pre-crash events. In 2005, the National Highway Traffic Safety Administration (NHTSA) was authorized under Section 2003(c) of the Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU) to conduct a national survey to collect on-scene data pertaining to events and associated factors that possibly contributed to crash occurrence. NHTSA's National Center for Statistics and Analysis (NCSA) conducted the NMVCCS from July 3, 2005, to December 31, 2007. Crashes were investigated at the crash scene to collect driver, vehicle, and environment-related information pertaining to crash occurrence, with a focus on driver's role. The targeted information was captured mainly through four data elements: (i) movement prior to critical pre-crash event (i.e., the movement of the vehicle immediately before the occurrence of the critical event); (ii) critical pre-crash event (i.e., the circumstance that led to vehicle's first impact); (iii) critical reason for the critical pre-crash event (i.e., the immediate reason for the critical event, which is often the last failure in the causal chain of events leading up to the crash); and (iv) the crash associated factors (i.e., the factors that are likely to add to the probability of crash occurrence). This was done with reference to the crash envelope that comprises of a sequence of events, referring to the above data elements, which eventually led to the crash. Refer to the section Scope and Limitations of NMVCCS data.

This Crash•Stats presents some statistics related to one of the above-mentioned four data elements, namely "critical reason for the critical pre-crash event." The data obtained through the sample of 5,470 NMVCCS crashes and the weights associated with them were used to obtain national estimates of frequencies and percentages along with their 95-percent confidence limits, as presented in the following sections.

Critical Reasons for the Critical Pre-Crash Event

The critical reason is the immediate reason for the critical pre-crash event and is often the last failure in the causal chain of events leading up to the crash. Although the critical reason is an important part of the description of events leading up to the crash, it is not intended to be interpreted as the cause of the crash nor as the assignment of the fault to the driver, vehicle, or environment.

A critical reason can be assigned to a driver, vehicle, or environment. Normally, one critical reason was assigned per crash, based upon NMVCCS researcher's crash assessment without suggesting the cause of the crash or assignment of fault. The critical reason was assigned to the driver in an esti-

† 95% conf. limits: $\pm t_{\alpha/2;\,\text{deg. freedom}} \times$ Std. Dev. ($\alpha = 0.05$, t-value = 2.179)

mated 94 percent (±2.2%) of the NMVCCS-qualified crashes (Table 1). In addition, the critical reason was assigned to the vehicle in an estimated 2 percent (±0.7%) and to the environment in about 2 percent (±1.3%) of the crashes.

Table 1. Driver, Vehicle, and Environment Related Critical Reasons

Critical Reason Attributed to	Estimated	
	Number	Percentage* ± 95% conf. limits
Drivers	2,046,000	94% ±2.2%
Vehicles	44,000	2% ±0.7%
Environment	52,000	2% ±1.3%
Unknown Critical Reasons	47,000	2% ±1.4%
Total	2,189,000	100%

*Percentages are based on unrounded estimated frequencies
(Data Source: NMVCCS 2005–2007)

The critical reasons related statistics are presented in detail in Table 2 for drivers, Table 3 for vehicles, and Table 4 for environment.

Critical reason attributed to drivers

The critical reason was assigned to drivers in an estimated 2,046,000 crashes that comprise 94 percent of the NMVCCS crashes at the national level. However, in none of these crashes was the assignment intended to blame the driver for causing the crash. The driver-related critical reasons are broadly classified into recognition errors, decision errors, performance errors, and non-performance errors. Statistics in Table 2 show that the recognition error, which included driver's inattention, internal and external distractions, and inadequate surveillance, was the most frequently assigned (41% ±2.2%) critical reason. Decision errors such as driving too fast for conditions, too fast for the curve, false assumption of others' actions, illegal maneuver and misjudgment of gap or others' speed accounted for about 33 percent (±3.7%) of the crashes. In about 11 percent (±2.7%) of the crashes, the critical reason was performance error such as overcompensation, poor directional control, etc. Sleep was the most common critical reason among non-performance errors that accounted for 7 percent (±1.0%) of the crashes. Other driver errors were recorded as critical reasons for about 8 percent (±1.9%) of the drivers.

Table 2. Driver-Related Critical Reasons

Critical Reason	Estimated (Based on 94% of the NMVCCS crashes)	
	Number	Percentage* ± 95% conf. limits
Recognition Error	845,000	41% ±2.2%
Decision Error	684,000	33% ±3.7%
Performance Error	210,000	11% ±2.7%
Non-Performance Error (sleep, etc.)	145,000	7% ±1.0%
Other	162,000	8% ±1.9%
Total	2,046,000	100%

*Percentages are based on unrounded estimated frequencies
(Data Source: NMVCCS 2005–2007)

Critical reason attributed to vehicles

The critical reason was assigned to vehicles in an estimated 44,000 crashes comprising about 2 percent of the NMVCCS crashes, though none of these reasons implied a vehicle causing the crash. There were no detailed inspections of vehicles during the NMVCCS on-scene crash investigation; the vehicle-related critical reasons were mainly inferred through external visual inspection of the vehicle components. This resulted in only mostly external, easily visible factors (tires, brakes, steering column, etc.) that were cited as the few vehicle-related critical reasons. The related statistics may not, therefore, be representative of the role of other internal vehicle related problems that might have led to the crash. Of the small percentage (2%) of the crashes in which the critical reason was assigned to the vehicle, the tire problem accounted for about 35 percent (±11.4%) of the crashes. Brake-related problems as critical reasons accounted for about 22 percent (±15.4%) of such crashes. Steering/suspension/transmission/engine-related problems were assigned as critical reasons in 3 percent (±3.3%) of such crashes. Other vehicle-related problems were assigned as critical reason in about 40 percent (±24.0%) percent of such crashes.

Table 3. Vehicle-Related Critical Reasons

Critical Reason	Estimated (Based on 2% of the NMVCCS crashes)	
	Number	Percentage* ± 95% conf. limits
Tires /wheels-related	15,000	35% ± 11.4%
Brakes-related	10,000	22% ± 15.4%
Steering/suspension/transmission/ engine-related	2,000	3% ± 3.3%
Other/unknown vehicle-related problems	17,000	40% ± 24.0%
Total	44,000	100%

*Percentages are based on unrounded estimated frequencies
(Data Source: NMVCCS 2005–2007)

Critical reason attributed to environment

The critical reason was assigned to about 2 percent of the estimated 2,189,000 NMVCCS crashes. However, none of these is suggestive of the cause of the crash. Table 4 presents statistics related to crashes in which the critical reason was attributed to roadway and atmospheric conditions. In about 50 percent (±14.5%) of the 52,000 crashes the critical reason was attributed to slick roads. Glare as a critical reason accounted for about 17 percent (±16.7%) of the environment-related crashes, and view obstruction was assigned in 11 percent (±7.2%) of the crashes. Signs and signals accounted for 3 percent (±2.5%) of such crashes. In addition, in 52,000 of the crashes with a critical reason attributed to the environment, the weather condition (fog/rain/snow) was cited in 4 percent (±2.9%) of the crashes.

Table 4. Environment-Related Critical Reasons

Critical Reason	Estimated (Based on 2% of the NMVCCS crashes)	
	Number	Percentage* ± 95% conf. limits
Slick roads (ice, loose debris, etc.)	26,000	50% ±14.5%
Glare	9,000	17% ±16.7%
View obstructions	6,000	11% ±7.2%
Other highway-related condition	5,000	9% (0, 9.9)††%
Fog/rain/snow	2,000	4% ±2.9%
Other weather-related condition	2,000	4% (0.0, 9.1)††%
Signs/signals	1,000	3% ± 2.5%
Road design	1,000	1% (0, 3.3)††%
Total	52,000	100%

*Percentages are based on unrounded estimated frequencies
††Conf. limits with lower limit 0
(Data Source: NMVCCS 2005–2007)

Scope and Limitations of NMVCS Data

NMVCCS data is restricted to crashes that occurred from 6 a.m. to midnight. In addition, the following criteria must be met by a crash to qualify for an on-scene investigation (NMVCCS-qualified crash):

- The crash must have resulted in a harmful event associated with a vehicle in transport on a trafficway.
- EMS must have been dispatched to the crash scene.
- At least one of the first three crash-involved vehicles must be present at the crash scene when the NMVCCS researcher arrives.
- The police must be present at the scene of the crash when the NMVCCS researcher arrives.
- At least one of the first three vehicles involved in the crash must be a light passenger vehicle that was towed or will be towed due to damage.
- A completed police accident report for this crash must be available.

It is important to note that the pre-crash assessment of crashes in terms of the critical event, critical reasons, and associated factors is neither suggestive of the cause of the crash nor of a fault to the driver, vehicle, or environment. Therefore, care needs to be taken in interpreting the results of the exploratory and descriptive analyses of the data or of the clinical investigation. Since NMVCCS only collects data on crashes that meet the above-mentioned criteria, the estimates based on NMVCCS data should not be compared with those from other databases such as NHTSA's General Estimates System (GES) or the NASS-CDS.

Suggested APA Format Citation for This Document:

Singh, S. (2018, March). *Critical reasons for crashes investigated in the National Motor Vehicle Crash Causation Survey*. (Traffic Safety Facts Crash•Stats. Report No. DOT HS 812 506). Washington, DC: National Highway Traffic Safety Administration.

U.S. Department of Transportation

National Highway Traffic Safety Administration

This Crash•Stats was prepared by Santokh Singh, Senior Statistician, Bowhead Systems Management, Inc., working under contract with the Mathematical Analysis Division of the National Center for Statistics and Analysis, NHTSA. For questions regarding the information presented in this document, please contact NCSAWEB@dot.gov.