NHTSA's Secret Data and Ford Explorers in Fatal, Post-recall, Tire-related Crashes

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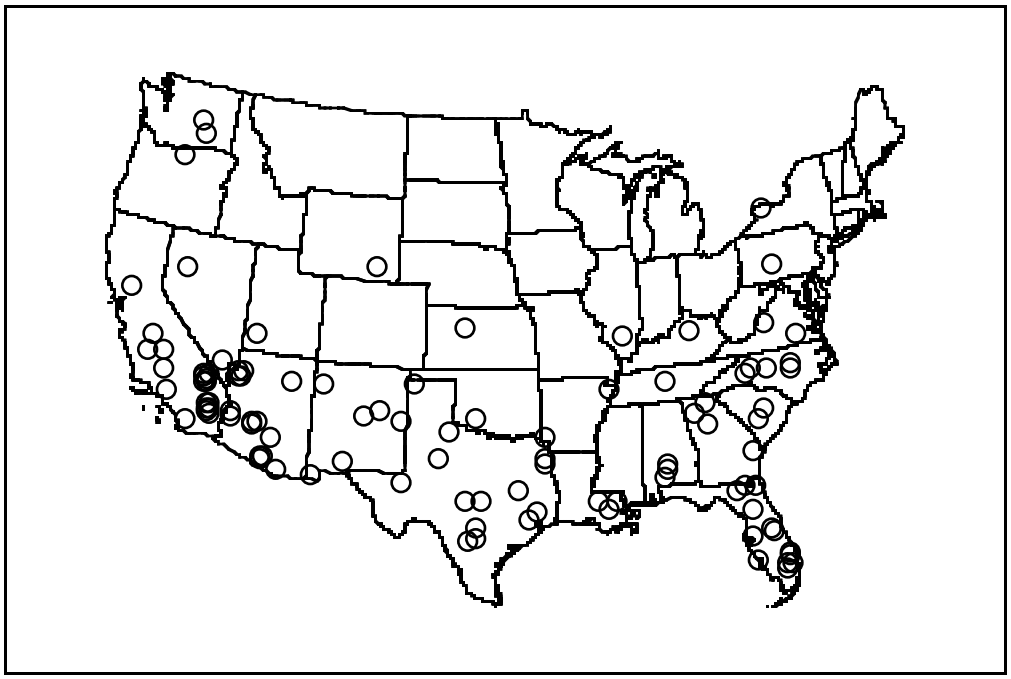

Post-recall, Fatal Crashes Involving Ford Explorers with Reported Tire Failures, 2002 – 2004. Data Source: Fatality Analysis Reporting System. See text for important details.

For Quality Control Systems Corporation:

R. A. Whitfield, President

Abstract

The well-known replacement of tires in a substantial fraction of the Ford Explorer fleet slowed – but did not halt – tire-related, Ford Explorer crash fatalities. Since the tire recalls were completed, there have been more reported fatalities related to tire failures than there had been up to the time the scandal was first given wide publicity. Unfortunately, the types of tires involved and the specific nature of these failures is not publicly known. The National Highway Traffic Safety Administration possesses important public health data which could aid an investigation of this issue. These data are being kept secret from researchers outside the agency, while the problem appears to be worsening once again.

Introduction

The belated recall and service campaigns involving certain Firestone tires in 2000 and 2001 were partly the result of a failure to promptly detect motor vehicle safety defects. Prevention of future similar failures is an important public health goal. In our 2004 paper, we presented a statistical method to prioritize engineering and statistical investigations into potential safety related defects in motor vehicles based on "early warning," surveillance data.[1] We noted in that paper that early detection of motor vehicle safety defects demands data with sufficient detail and coverage, as well as data that are timely available and accessible to researchers.

Potentially vital surveillance data have been collected since December, 2003 through the reporting program established by the federal Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act. This program is administered by the National Highway Traffic Safety Administration (NHTSA). According to the language of the Act, "The manufacturer of a motor vehicle or motor vehicle equipment shall report to the Secretary, in such manner as the Secretary establishes by regulation, all incidents of which the manufacturer receives actual notice which involve fatalities or serious injuries which are alleged or proven to have been caused by a possible defect in such manufacturer's motor vehicle or motor vehicle equipment in the United States..." [2]

With the exception of a few, scattered summaries, these claims data have been kept secret from researchers outside NHTSA. This secrecy policy was put into place despite the agency's final regulatory ruling that the data for claims of deaths, injuries, and property damage allegedly caused by specific products would not automatically be given confidential treatment by the

agency [3] and despite official agency statements that the data actually were publicly available. [4] In fact, the great majority of claims data regarding deaths, injuries, and property damage referred to in the TREAD Act are not available to independent, external researchers and they never have been.

While the TREAD data have been kept secret, we have become concerned by recent information about fatal, Ford Explorer tire-related crashes that is publicly available. These concerns are focussed on crashes occurring in the years following the well-known recall and tire replacement programs by Firestone and Ford in 2000 and 2001. Were the TREAD data actually available and of sufficient coverage and quality, the TREAD data could potentially prove useful to better understand the circumstances of the most recent Ford Explorer, tire-related deaths for later model years and to provide guidance in order to avoid future, similar casualties.

Methods and Materials

Nearly all data from the NHTSA's Fatality Analysis Reporting System (FARS) are publicly available to researchers over the Internet through calendar year 2004. These are data about motor vehicle crashes in which a fatality occurs on a roadway customarily open to the public within 30 days of the crash. We analyzed these data going back to 1990 in order to study model year 1991 through 2005 utility vehicles to cover the entire range of production model years for the Ford Explorer. [5] We determined the make, series, model, vehicle type, and size type of these crash-involved vehicles using the Highway Loss Data Institute's VINDICATOR program, based on the reported Vehicle Identification Number recorded in FARS. [6] Then, using the VINDICATOR typology, we selected only midsize utility vehicles for model years 1991 through 2005 in which an occupant was killed for further analysis. There were 14,234 vehicles in the resulting dataset. JMP software produced by the SAS Institute were used for the purposes of data management and analysis. [7]

We combined a number of makes and series under the general category of "Ford Explorer" and we apply the term, "Explorer," collectively to this group. These include two- and four-door as well as two-, four-, and all-wheel drive versions of Ford Explorers, Mercury Mountaineers, and Mazda Navajos. Mazda Navajos were available only in the 1991 through 1994 model years. The first model year of production for the Mercury Mountaineer was 1997. No Explorer Sport Trac vehicles are included in our dataset, as VINDICATOR has classified these as pickup trucks.

Fatal crashes of the Explorer are compared in this paper to fatal crashes of other midsize utility vehicles. Additional detail for crashes of the Explorers and the vehicles in the comparison group are shown in Appendix A, covering the years 2002 through 2004 (6,364 vehicles in total). This appendix shows the number of fatal crashes of each vehicle with an occupant death, the number of these vehicles for each in which we could not determine whether a tire-failure had occurred or not, the number of vehicles with an occupant death and a reported tire failure, and the total occupant deaths in vehicles with a reported tire failure.

The specific nature of tire failures are not identified with detail in FARS. However, failures in tires that contribute to a crash can be identified in a number of ways in the FARS data. "Tire factors" that identify inadequate, inoperative, faulty, damaged or defective tires are recorded at the vehicle level in FARS. Such conditions may be due to owner/user neglect, or poor or sub-standard maintenance, tampering or defective manufacturing. Flats or blowouts as well as improper tire pressure, road debris, ruts, holes or bumps in the road are identified at the driver level. For the purposes of this analysis, a "tire failure" is noted when a tire factor is noted at the vehicle level or when a flat or blowout is noted at the driver level. However, factors that indicate improper tire pressure, road debris, ruts, holes or bumps in the road are specifically excluded in all of the statistics involving tire failures that follow. That is, in these circumstances, we code "tire failure" as unknown. In a small number of cases, every potentially codable vehicle factor and driver factor in FARS has been coded as "unknown." We code "tire failure" as unknown in this circumstance.

It is unfortunate that FARS does not identify either the manufacturer, model, or the size of tires on vehicles in fatal crashes. The precise nature of the tire failures are also not specifically identified in FARS, even when these are known to be causal factors. It is even possible that some of the coded tire factors are caused by the crash itself. For this reason, these data should be interpreted with caution. Both false reports of tire problems as well as false omissions of tire problems are possible in FARS. Nevertheless, the data about tire failures in FARS has been shown to be of sufficient quality to be valuable as a surveillance tool for tire-related safety defects and could have helped to avoid the scandal that unfolded in 2000.[1] For reasons discussed below, our analyses of these data could be expanded in important ways through linkage with the TREAD data for model year vehicles covered by the TREAD regulations.

Results

The replacement and recall of a large number of tires equipped on Ford Explorers in 2000 and 2001 was followed by a sharp decrease in the number of tire-related deaths in Explorer crashes in 2001 and a further, smaller decrease in 2002. Unfortunately, tire failures continued to be recorded in fatal crashes of Ford Explorer utility vehicles during this time. Deaths in tire-related, Explorer crashes increased markedly in 2003 and showed a smaller increase again in 2004. The counts of crashes with a reported tire failures of those with non-missing data by calendar year are depicted in Figure 1. Table 1 shows the actual counts of deaths that are depicted in Figure 1.

Figure 1. Occupant Deaths in Ford Explorers with Reported Tire Failures by Calendar Year.

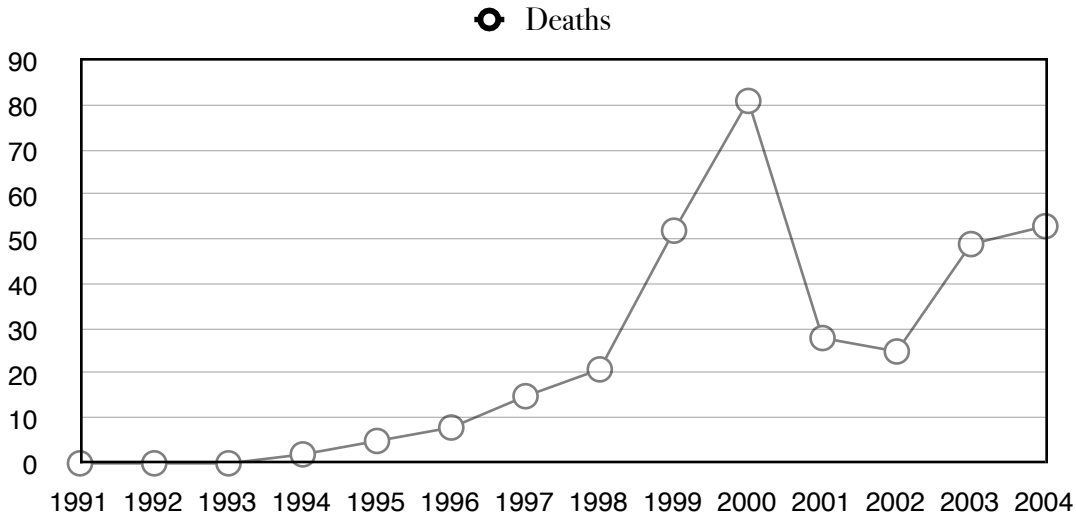

Table 1. Ford Explorers with Occupant Deaths and Reported Tire Failures by Calendar Year.

Calendar Year	Vehicles w/ Occupant Death	Deaths in Vehicles with Reported Tire Failure
1990	1	0
1991	20	0
1992	46	0
1993	80	0
1994	103	2
1995	153	5
1996	220	8

Calendar Year	Vehicles w/ Occupant Death	Deaths in Vehicles with Reported Tire Failure
1997	257	15
1998	327	21
1999	434	52
2000	532	81
2001	501	28
2002	605	25
2003	734	49
2004	706	53

In 2002 through 2004, there were 127 deaths in 102 reported, tire-related, Ford Explorer crashes. An additional 105 persons were incapacitatingly injured in these fatal crashes; 4,702 premature years of life (before age 70) were lost. (One of the 127 deaths occurred before the scheduled expiration of the second Firestone service campaign on January 31, 2002, however, we cannot determine whether a Firestone tire was involved in the crash.) The first reported Explorer tire failure in our database of fatal crashes occurred on July 10, 1994. KHOU-TV in Houston, Texas ran its first investigative report about certain Firestone tires related to Explorer crashes on February 7, 2000. Up to that point in time, there had been 109 deaths in reported, tire-related, Ford Explorer crashes recorded in the FARS database. Through 2004, there have been 339 deaths in reported Explorer tire-related crashes. 330 of these deaths involved rollovers.

In 2002 through 2004, all occupant deaths in Ford Explorers amounted to 33% of all persons killed in the entire fleet of midsize SUVs (2,317 of 7,125; 95% confidence interval: 31-34%). During this time, all occupant deaths in tire related crashes of the Ford Explorer were 52% of all persons killed in all tire related crashes of midsize SUVs (127 of 243; 95% confidence interval: 46-59%).

The percentage of model year 1991 through 2005, midsize, utility vehicles in crashes that killed an occupant in which a tire failure was reported in FARS differs markedly, depending on whether the vehicle was an Explorer or not. These differences are depicted in Figure 2.

Figure 2. Percentage of Vehicles with Reported Tire Failures by Calendar Year by Vehicle Group.

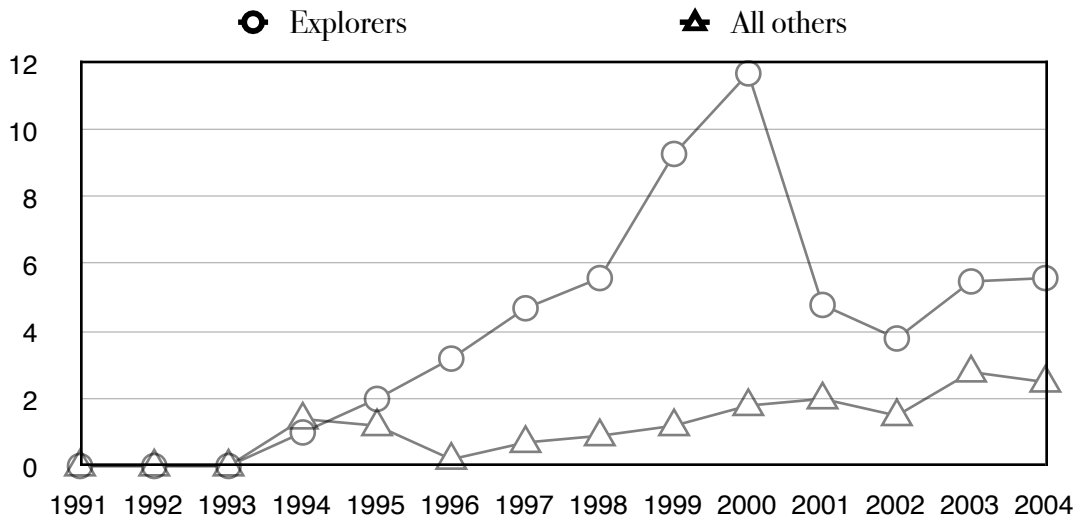

Table 2 shows the actual counts of fatal crash-involved vehicles that are depicted in Figure 2 by year and by vehicle group. Based on Fisher's two-tailed, exact test, the differences in the proportions of vehicles with reported tire factors became statistically significant in 1996 ($p = 0.0027$) and has remained so in every year through 2004 (all values of $p \leq 0.003$).

Table 2. Vehicles with Reported Tire Failures by Calendar Year by Vehicle Group.

Vehicle Group	Calendar Year	Vehicle w/ Occupant Death	Vehicles w/ Occ. Dth., Codable Veh./Driver Factors	Vehicles w/ Occupant Death and Reported Tire Failure	Percentage of Vehicles w/ Reported Tire Failure
Explorers	1990	1	1	0	0.0
Explorers	1991	20	20	0	0.0
Explorers	1992	46	46	0	0.0
Explorers	1993	80	80	0	0.0
Explorers	1994	103	103	1	1.0
Explorers	1995	153	153	3	2.0
Explorers	1996	220	220	7	3.2
Explorers	1997	257	255	12	4.7

Vehicle Group	Calendar Year	Vehicle w/ Occupant Death	Vehicles w/ Occ. Dth., Codable Veh./Driver Factors	Vehicles w/ Occupant Death and Reported Tire Failure	Percentage of Vehicles w/ Reported Tire Failure
Explorers	1998	327	324	18	5.6
Explorers	1999	434	432	40	9.3
Explorers	2000	532	532	62	11.7
Explorers	2001	501	496	24	4.8
Explorers	2002	605	599	23	3.8
Explorers	2003	734	728	40	5.5
Explorers	2004	706	701	39	5.6
Others	1990	15	15	0	0.0
Others	1991	41	39	0	0.0
Others	1992	64	62	0	0.0
Others	1993	132	132	0	0.0
Others	1994	214	213	3	1.4
Others	1995	326	323	4	1.2
Others	1996	435	429	1	0.2
Others	1997	541	540	4	0.7
Others	1998	666	664	6	0.9
Others	1999	785	782	9	1.2
Others	2000	916	913	16	1.8
Others	2001	1061	1057	21	2.0
Others	2002	1271	1267	19	1.5
Others	2003	1457	1449	41	2.8
Others	2004	1591	1582	40	2.5

Tire failures in fatal, rollover crashes are strongly associated with the speed of the crash. This association, however, is not the same for the Explorers in our dataset as it is for other mid-size utility vehicles. Figure 3 shows this difference for the calendar years 2002 through 2004. Table 3 presents summaries from the dataset on which Figure 3 is based.

Figure 3. Percentage of Vehicles with Reported Tire Failures in Fatal, Rollover Crashes by Posted Roadway Speed Limit by Vehicle Group.

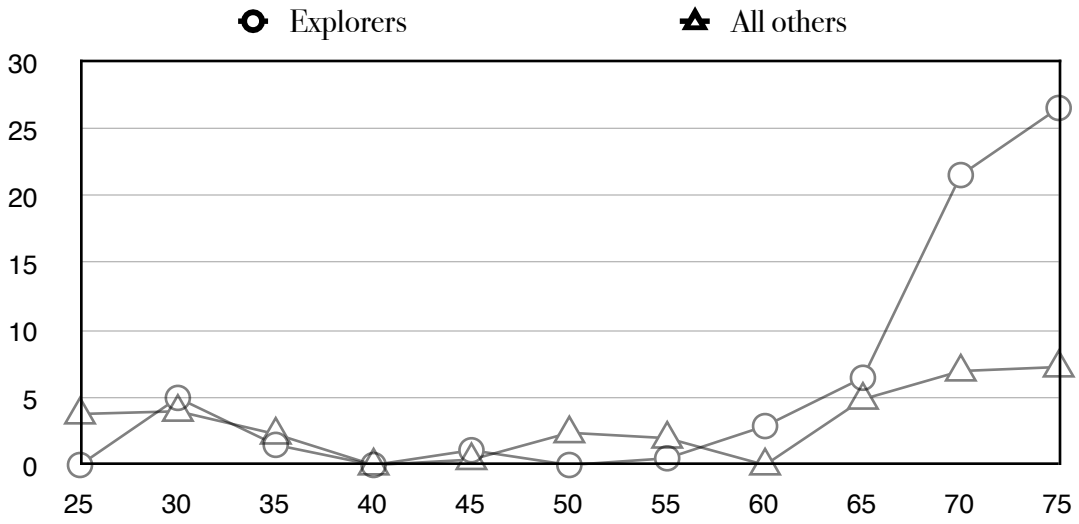

Table 3. Vehicles in Fatal, Rollover Crashes by Posted Roadway Speed Limit by Vehicle Group.

Vehicle Group	Speed Limit	Vehicles w/ Occupant Death	Vehicles w/ Occ. Dth., Codable Veh./Driver Factors	Vehicles w/ Occupant Death and Reported Tire Failure	Percentage of Vehicles w/ Reported Tire Failure
Explorer	25	23	22	0	0.0
Explorer	30	40	40	2	5.0
Explorer	35	69	68	1	1.5
Explorer	40	40	40	0	0.0
Explorer	45	89	89	1	1.1
Explorer	50	47	47	0	0.0
Explorer	55	374	374	2	0.5
Explorer	60	72	68	2	2.9
Explorer	65	263	260	17	6.5

Vehicle Group	Speed Limit	Vehicles w/ Occupant Death	Vehicles w/ Occ. Dth., Codable Veh./Driver Factors	Vehicles w/ Occupant Death and Reported Tire Failure	Percentage of Vehicles w/ Reported Tire Failure
Explorer	70	250	245	53	21.6
Explorer	75	81	79	21	26.6
Other	25	52	52	2	3.8
Other	30	50	50	2	4.0
Other	35	133	133	3	2.3
Other	40	89	89	0	0.0
Other	45	249	249	1	0.4
Other	50	84	84	2	2.4
Other	55	842	839	17	2.0
Other	60	115	113	0	0.0
Other	65	471	468	23	4.9
Other	70	404	398	28	7.0
Other	75	152	151	11	7.3

Discussion

Insofar as reported, tire-related factors in fatal crashes are undercounts of the actual number that occurs, the true number of deaths and injuries in such crashes is higher than our analysis shows. Linkage with the TREAD data might make it possible to supplement the casualties summaries presented here. This is because manufacturers of light vehicles and tires are required by the TREAD regulations to report claims involving deaths, injuries, and property damage when defective components are allegedly at fault in later model year vehicles and tire lines.

It is important to consider that the apparent over-representation of tire-related factors in Explorer crashes since calendar year 2000, compared to other midsize SUVs, might be due to a reporting bias in FARS. Due to the widespread publicity surrounding Ford Explorer rollovers associated with tire failures, it might be possible that investigating officers (and, perhaps, FARS coders) are less likely to miss tire failures when they actually occur in a fatal rollover crash of the

Explorer or more likely to over-report tire failures even when they do not actually occur in a fatal Explorer crash. However, the greatest differences in tire failure rates per crash between the Explorers and other midsize SUVs in rollovers occur on high speed roadways. We believe that, if a reporting bias were a factor in the FARS data since 2000, this bias would be unlikely to be influenced by the speed limit of the roadway on which the rollover happened. (See Figure 3.) The TREAD data might provide a basis for a linkage study that could help determine if reporting bias is a substantial cause of the apparent increase in tire-related Ford Explorer deaths.

We are keenly aware that tire failures can result from a wide variety of causes. Many of these causes do not depend on the design, manufacture, or testing of the either the tire or of the vehicle on which the tires are fitted. FARS does not record either the manufacturer, model, or the size of tires on vehicles in fatal crashes. The TREAD data, however, are supposed to include this level of detail and could prove highly useful to understand these issues.

Among many other factors, the apparent acceleration in tire-related Explorer deaths is likely to be a influenced by the increasing age of the average vehicle in the Ford Explorer fleet and perhaps of the tires as well. In 2004 the average age of an Explorer in our database was 6.7 years (determined by a simple subtraction of the model year of the vehicle from the calendar year of the crash) compared to 5.5 years for all other SUVs. However, it is our understanding that large numbers of problematic tires on Ford Explorers were recalled and replaced during 2000 and 2001 which would have tended to make the Explorers' tires newer than for the other midsize SUVs in comparable model years. Even so, we wish to emphasize that we do not know what tires were on the great majority of these vehicles. We do not know how old the tires were or their condition at the time of the crash. We do not know why the tires apparently failed nor do we know the manner in which they failed. As a vehicle sees more years in service, the likelihood that the tires used on the vehicle are "original equipment" tires decreases on the average. The TREAD data could prove useful to better understand some of these issues.

We must also emphasize that, at this time, we have not fully analyzed differences in the distribution of tire failures in Ford Explorer crashes during the period, 2002 through 2004, between differing "generations" of the Explorer, particular model years, 2- or 4- door models, or 2- or 4-wheel drive models.

Conclusion

Deaths among occupants of Ford Explorers with reported tire failures slowed, but did not stop, with the well-known tire recalls, tire replacement program, and tire service campaign that affected the vehicle. During 2003 and 2004, these deaths began to increase again. The TREAD data, now kept secret by NHTSA, may shed important light on this issue because it was designed and is maintained at considerable public expense to do exactly that.

The TREAD Act was passed by the Congress following revelations that motor vehicle and tire manufacturers were withholding important public health information. Under the agency's current policies, the manufacturers are required to turn over detailed data about deaths, injuries, and property damage claims to the National Highway Traffic Safety Administration. It is NHTSA who now keeps these data secret from the public. This is an indefensible and regrettable policy that should be abandoned.

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Make	Series	Earliest Model Year with an Occ. Death	Latest Model Year with an Occ. Death	Vehs with an Occ. Death	Vehs w/ Occ. Death, No Coded Veh./ Drvr. Factors	Vehs w/ Death and Rept'd Tire Failure	Occ. Deaths in Vehs w/ Rept'd Tire Failure
ACURA	MDX 4D 4WD	2001	2004	11	0	0	0
ACURA	SLX 4D 4X4	1996	1996	3	0	0	0
BMW	X5 4D 4WD	2000	2002	7	1	0	0
BUICK	REN-DEZ-VOUS 4D 2WD	2002	2004	14	0	0	0
BUICK	REN-DEZ-VOUS 4D 4WD	2002	2004	4	0	0	0
CADIL-LAC	SRX 4D 2WD/4WD	2004	2005	6	0	0	0
CHEV-ROLET TRUCK	S10 BLAZER 2D 4X2	1995	2004	92	0	1	1
CHEV-ROLET TRUCK	S10 BLAZER 4D 4X2	1995	2004	180	1	9	12
CHEV-ROLET TRUCK	T10 BLAZER 2D 4X4	1991	2004	124	0	2	2
CHEV-ROLET TRUCK	T10 BLAZER 4D 4X4	1991	2004	598	1	10	10

Make	Series	Earliest Model Year with an Occ. Death	Latest Model Year with an Occ. Death	Vehs with an Occ. Death	Vehs w/ Occ. Death, No Coded Veh./ Drvr. Factors	Vehs w/ Death and Rept'd Tire Failure	Occ. Deaths in Vehs w/ Rept'd Tire Failure
CHEV-ROLET TRUCK	TAHOE 2D 4X2	1996	1996	1	0	0	0
CHEV-ROLET TRUCK	TRAIL-BLAZER 4D 4X2	2002	2005	96	1	0	0
CHEV-ROLET TRUCK	TRAIL-BLAZER 4D 4X4	2002	2005	113	1	1	1
CHRYS-LER TRUCK	PACIFICA 4D 2WD	2004	2004	3	0	0	0
CHRYS-LER TRUCK	PACIFICA 4D 4WD	2004	2004	3	0	0	0
DODGE TRUCK	DURANG O 4D 4X2	1999	2003	35	0	1	1
DODGE TRUCK	DURANG O 4D 4X4	1998	2003	126	0	0	0
FORD TRUCK	EX-PLORER 2D 4X2	1991	2003	266	2	14	16
FORD TRUCK	EX-PLORER 2D 4X4	1991	2003	183	2	5	5
FORD TRUCK	EX-PLORER 4D 4X2	1991	2004	632	6	43	56

Make	Series	Earliest Model Year with an Occ. Death	Latest Model Year with an Occ. Death	Vehs with an Occ. Death	Vehs w/ Occ. Death, No Coded Veh./ Drvr. Factors	Vehs w/ Death and Rept'd Tire Failure	Occ. Deaths in Vehs w/ Rept'd Tire Failure
FORD TRUCK	EX-PLORER 4D 4X4	1991	2004	827	5	37	46
GMC TRUCK	ENVOY 4D 4X2	2002	2004	18	0	0	0
GMC TRUCK	ENVOY 4D 4X4	2002	2005	40	0	1	1
GMC TRUCK	S15 JIMMY 2D 4X2	1995	2001	25	0	0	0
GMC TRUCK	S15 JIMMY 4D 4X2	1995	2001	67	0	0	0
GMC TRUCK	T15 JIMMY 2D 4X4	1991	2001	27	0	0	0
GMC TRUCK	T15 JIMMY 4D 4X4	1991	2001	172	0	2	2
HONDA	PASS-PORT 4D 4X2	1994	2002	47	1	2	2
HONDA	PASS-PORT 4D 4X4	1994	2002	48	0	2	2
HONDA	PILOT 4D 4WD	2003	2004	9	0	0	0
INFINITI	FX35 4D 4WD	2003	2003	1	0	0	0

Make	Series	Earliest Model Year with an Occ. Death	Latest Model Year with an Occ. Death	Vehs with an Occ. Death	Vehs w/ Occ. Death, No Coded Veh./ Drvr. Factors	Vehs w/ Death and Rept'd Tire Failure	Occ. Deaths in Vehs w/ Rept'd Tire Failure
INFINITI	QX4 4D 4X2	2001	2002	2	0	0	0
INFINITI	QX4 4D 4X4	1997	2003	25	0	0	0
ISUZU	AMIGO 2D 4X4	1992	1994	2	0	0	0
ISUZU	AXIOM 4D 4X2	2002	2003	3	0	0	0
ISUZU	AXIOM 4D 4X4	2002	2002	3	0	0	0
ISUZU	RODEO 4D 4X2	1991	2004	209	4	16	24
ISUZU	RODEO 4D 4X4	1991	2002	117	0	2	2
ISUZU	TROOPER 4D 4X2	2000	2002	7	0	0	0
ISUZU	TROOPER 4D 4X4	1991	2002	76	1	7	8
ISUZU	VEHI-CROSS 2D 4X4	1999	2001	4	0	0	0
JEEP	GRAND CHERO-KEE 4D 4X2	1993	2004	192	1	1	1

Make	Series	Earliest Model Year with an Occ. Death	Latest Model Year with an Occ. Death	Vehs with an Occ. Death	Vehs w/ Occ. Death, No Coded Veh./ Drvr. Factors	Vehs w/ Death and Rept'd Tire Failure	Occ. Deaths in Vehs w/ Rept'd Tire Failure
JEEP	GRAND CHERO-KEE 4D 4X4	1993	2004	575	1	6	6
JEEP	LIBERTY 4D 4X2	2002	2004	27	1	0	0
JEEP	LIBERTY 4D 4X4	2002	2004	45	1	0	0
KIA	SOR-ENTO 4D 4X2	2003	2004	6	0	0	0
KIA	SOR-ENTO 4D 4X4	2003	2005	7	0	0	0
LAND ROVER	DISCOV-ERY 4D	1994	1998	15	0	0	0
LAND ROVER	DISCOV-ERY SE-RIES II 4D	1999	2004	33	0	1	1
LAND ROVER	RANGE ROVER 4D SWB	1991	1994	3	0	0	0
LEXUS	RX 300 4D 2WD	1999	2003	11	0	0	0
LEXUS	RX 300 4D 4WD	1999	2003	15	1	0	0
LEXUS	RX 330 4D 2WD	2004	2004	1	0	0	0

Make	Series	Earliest Model Year with an Occ. Death	Latest Model Year with an Occ. Death	Vehs with an Occ. Death	Vehs w/ Occ. Death, No Coded Veh./ Drvr. Factors	Vehs w/ Death and Rept'd Tire Failure	Occ. Deaths in Vehs w/ Rept'd Tire Failure
LEXUS	RX 330 4D 4WD	2004	2004	1	0	0	0
LINCOLN	AVIATOR 4D 4X2	2003	2003	1	0	0	0
LINCOLN	AVIATOR 4D 4X4	2003	2003	3	0	0	0
MAZDA	NAVAJO 2D 4X2	1992	1993	2	0	1	1
MAZDA	NAVAJO 2D 4X4	1991	1994	11	0	1	1
MER-CEDES BENZ	M CLASS 4D 4X4	1998	2003	20	0	1	1
MER-CURY	MOUN-TAINEER 4D 4X2	1997	2003	34	0	0	0
MER-CURY	MOUN-TAINEER 4D 4X4	1997	2004	90	2	1	2
MITSUBI-SHI	EN-DEAVOR 4D 2WD	2004	2004	2	0	0	0
MITSUBI-SHI	EN-DEAVOR 4D 4WD	2004	2004	2	0	0	0
MITSUBI-SHI	MON-TERO 4D 4X4	1991	2003	61	0	3	4

Make	Series	Earliest Model Year with an Occ. Death	Latest Model Year with an Occ. Death	Vehs with an Occ. Death	Vehs w/ Occ. Death, No Coded Veh./ Drvr. Factors	Vehs w/ Death and Rept'd Tire Failure	Occ. Deaths in Vehs w/ Rept'd Tire Failure
MITSUBI-SHI	MON-TERO SPORT 4D 4X2	1997	2003	94	0	4	4
MITSUBI-SHI	MON-TERO SPORT 4D 4X4	1997	2003	40	0	0	0
NISSAN	MURANO 4D 2WD	2003	2003	1	0	0	0
NISSAN	MURANO 4D 4WD	2003	2004	4	0	0	0
NISSAN	PATH-FINDER 4D 4X2	1991	2004	87	1	4	4
NISSAN	PATH-FINDER 4D 4X4	1991	2004	136	0	8	11
NISSAN	XTERRA 4D 4X2	2000	2004	44	0	1	1
NISSAN	XTERRA 4D 4X4	2000	2004	28	0	0	0
OLDSMO BILE	BRAVADA 4D 4X4	1991	2003	82	1	0	0
PONTIAC	AZTEK 4D 2WD	2001	2004	15	0	0	0

Make	Series	Earliest Model Year with an Occ. Death	Latest Model Year with an Occ. Death	Vehs with an Occ. Death	Vehs w/ Occ. Death, No Coded Veh./ Drvr. Factors	Vehs w/ Death and Rept'd Tire Failure	Occ. Deaths in Vehs w/ Rept'd Tire Failure
PONTIAC	AZTEK 4D 4WD	2001	2002	2	0	0	0
SUBARU	OUT-BACK 5D 4WD	2005	2005	1	0	0	0
SUZUKI	GR VI-TARA XL-7 4D 4X2	2001	2004	5	0	0	0
SUZUKI	GR VI-TARA XL-7 4D 4X4	2001	2003	12	0	0	0
TOYOTA	4RUN-NER 4D 4X2	1991	2005	144	3	7	7
TOYOTA	4RUN-NER 4D 4X4	1991	2004	264	0	8	8
TOYOTA	HIGH-LANDER 4D 2WD	2001	2003	12	0	0	0
TOYOTA	HIGH-LANDER 4D 4WD	2001	2004	10	0	0	0