

Seat Belt Use Among Rural & Urban Pickup Truck Drivers

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INTRODUCTION

According to the National Highway Traffic Safety Administration (NHTSA), traffic crashes are a leading cause of death among Americans ages four through 34.¹ Many traffic fatalities are the result of a lack of or improper seat belt use. In Missouri, nearly 70 percent of those who die in traffic crashes are not wearing their seat belt.² Seat belts, when properly used, are among the most important safety devices in a vehicle and can dramatically increase a driver or passenger's odds of surviving a crash.³ This report examines Missouri driver attitudes toward seat belt use, particularly focusing on male and female drivers in rural and urban settings, as well as pickup truck drivers vs. non-pickup drivers.

NATIONAL DATA

Recent research conducted by the National Highway Traffic Safety Administration (NHTSA) indicates that vehicle drivers and passengers are 45 percent more likely to survive a crash when lap and shoulder belts are properly worn. Additionally, the numbers bear out even more significantly for pickup and light truck occupants, who are 60 percent more likely to survive a crash when seat belts are properly worn.⁴

In examining crash trends in both rural and urban areas across the country, using the Fatal Accident Reporting System (FARS), NHTSA found that between 1994 and 2003, 327,445 vehicles were involved in rural fatal crashes, while there were 241,569 vehicles involved in urban fatal crashes, a difference of about 36 percent.⁵

Furthermore, NHTSA determined a vehicle involvement rate by dividing the number of vehicles involved in fatal rural/urban crashes by the vehicle miles traveled. From 1994 to 2003, 3.2 vehicles were involved in fatal crashes in rural areas

per 100 million miles traveled, compared to an urban rate of just 1.5 vehicles per 100 million miles traveled. Clearly, these statistics demonstrate that more fatal crashes occur in rural areas than urban areas.

Just as there are notable differences in the rate of fatal crashes in rural and urban areas, there also are distinct differences among the types of vehicles involved in fatal crashes in both areas, demonstrated in TABLE I. In rural areas, light and large trucks are driven in higher proportion than in urban areas, and thus were involved in more fatal crashes in rural areas. As noted in TABLE I, light trucks were involved in 37 percent of rural fatal crashes, and large trucks were involved in 10 percent. In urban areas, 30 percent of fatal crashes involved light trucks, and just 6 percent involved heavy trucks. Consequently, cars and motorcycles were proportionally involved in fewer fatal crashes in rural areas (47 percent and 4 percent respectively) and were proportionally involved in more fatal crashes in urban areas (55 percent and 6 percent respectively).⁶

MISSOURI AND SURROUNDING STATES

Missouri had the 11th highest number of vehicular crash fatalities nationally in 2005 with 1,257 fatalities. Missouri's rate of vehicular crash deaths per 100,000 people was 21.7 in 2005, or 10th worst in the nation. Among surrounding states, Missouri ranked third behind Illinois (1,230) and Tennessee (1,160) in number, and fourth behind Kentucky (23.6), Arkansas (23.3), and Oklahoma (22.6), in fatality rate.⁷

MISSOURI LAW

When it comes to laws regarding seat belts, Missouri is a secondary enforcement state, meaning that drivers and passengers in violation of the law can only be cited when

¹Subramanian, Rajesh (2006). "Motor Vehicle Traffic Crashes as a Leading Cause of Death in the United States, 2003." National Highway Traffic Safety Administration, Traffic Safety Facts Research Notes.

²Missouri Department of Transportation. "Safety Belts and Child Safety Seats." Accessed online at <http://www.modot.mo.gov/safety/SafetyBeltsandChildSafetySeats.htm>.

³National Highway Traffic Safety Administration National Center for Statistics and Analysis. (2005). "Traffic Safety Facts 2005 Data." Accessed online at <http://www.nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSP2005/OccupantProtectionTSP05.pdf>.

⁴National Highway Traffic Safety Administration National Center for Statistics and Analysis. (2005). "Traffic Safety Facts 2005 Data".

⁵National Highway Traffic Safety Administration National Center for Statistics and Analysis. (2005). "Contrasting Rural and Urban Fatal Crashes, 1994-2003." Accessed online at <http://www.nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/Rpts/2005/809896.pdf>.

⁶Ibid.

⁷Insurance Institute for Highway Safety Administration. (2005). "Fatality Facts 2005: State by State." Accessed online at http://www.iihs.org/research/fatality_facts/statebystate.html.



TABLE I. National crash data by vehicle type⁸

Vehicle type	Rural				Urban			
	Count	Lowest yearly %	Mean %	Highest yearly %	Count	Lowest yearly %	Mean %	Highest yearly %
Passenger car	152,880	41.56 (2003)	46.69	51.91 (1994)	133,585	49.06 (2003)	55.30	60.18 (1994)
Light trucks & vans	121,962	33.13 (1994)	37.25	40.75 (2003)	72,370	25.50 (1994)	29.96	33.78 (2003)
Large trucks	31,754	8.99 (1995)	9.70	10.12 (2000)	15,670	5.88 (2003)	6.48	6.88 (1998)
Motorcycles	13,746	3.19 (1996)	4.11	5.70 (2003)	13,497	4.55 (1997)	5.59	7.36 (2003)
Other/unknown	7,373	1.98 (1995)	2.25	2.59 (2003)	6,447	2.30 (1998)	2.67	3.93 (2003)
TOTAL	327,445		100%		241,569		100%	

Source: NCSA, NHTSA, FARS, 1194-2003

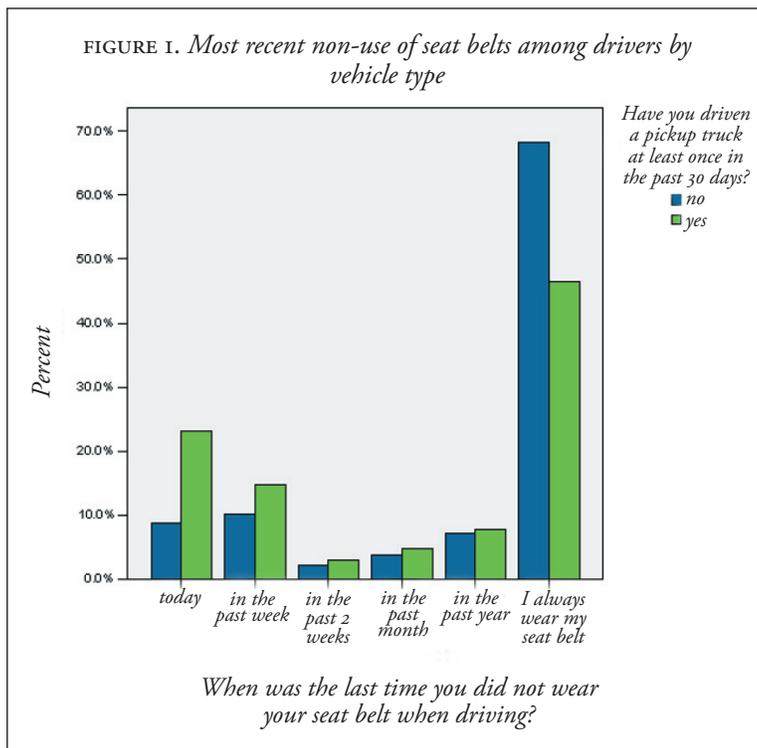
the vehicle has been stopped by a police officer for a separate offense. In other words, a police officer in Missouri cannot stop and cite a driver or passenger solely for not wearing a seat belt.

of pickup drivers report that the last time they did not wear a seat belt was today. This clearly demonstrates that pickup drivers are generally less likely to wear seat belts than non-pickup drivers.

MISSOURI DATA

According to NHTSA, seat belt usage in Missouri has increased steadily over the past five years, yet the state continues to lag behind the national average. In 2006, 75.2 percent of Missouri drivers and passengers wore their seat belt, while the national average was 81 percent.⁹

Missouri's rate of seat belt use is perhaps most important when discussed along with the rate of crashes in the state and type of vehicle involved. In 2005, there were 125,258 total vehicular crashes in Missouri. Of that total, 25,725 involved pickup trucks. This represents the second highest number of crashes by vehicle type in the state, following passenger cars, which were involved in 73,494 crashes. Of the 25,725 crashes involving pickup trucks, 239 were fatal crashes, resulting in 272 fatalities to occupants of pickups.¹⁰ FIGURE 1 breaks down seat belt use by vehicle type — pickup drivers and non-pickup drivers. Pickup drivers score poorest on the two ends of the graph. About 20 percent fewer pickup drivers report that they always use their seat belt compared to non-pickup drivers. Also, alarmingly, more than 20 percent



⁸National Highway Traffic Safety Administration National Center for Statistics and Analysis. (2005). "Contrasting Rural and Urban Fatal Crashes, 1994-2003."
⁹National Highway Traffic Safety Administration National Center for Statistics and Analysis. "Seat Belt Use in 2006 — Use Rates in the States and Territories." January, 2007. Accessed online at <http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/RNOTES/2007/810690-CrashStat-HTML/810690.html>.

¹⁰Missouri Department of Transportation. (2005). "2005 Missouri State Highway System Traffic Crashes Statistics." Accessed online at http://www.modot.mo.gov/safety/documents/2005AccidentStatisticsManualChapter1_b.pdf.

¹¹Missouri Department of Transportation. (2005). "2005 Missouri State Highway System Traffic Crashes Statistics."

TABLE 2. Rural & urban seat belt use attitudes by gender

		Male		Female	
		Rural	Urban	Rural	Urban
<i>If I were in a crash, I would want to have my seat belt on.</i>	<i>Strongly disagree</i>	1.5%	1.6%	1%	.7%
	<i>Disagree</i>	8%	3.7%	.5%	1.6%
	<i>Don't know</i>	1%	.3%	1%	.7%
	<i>Agree</i>	47.2%	30.4%	36.1%	22.9%
	<i>Strongly agree</i>	42.2%	64%	61.5%	74%
	TOTAL	100%	100%	100%	100%

TABLE 3. Seat belt attitudes among pickup truck drivers by gender

		Male		Female	
		Pickup	Non-pickup	Pickup	Non-pickup
<i>If I were in a crash, I would want to have my seat belt on.</i>	<i>Strongly disagree</i>	1.7%	1.6%	1.4%	.4%
	<i>Disagree</i>	6.6%	2.4%	2.1%	.8%
	<i>Don't know</i>	.9%	.3%	.7%	.8%
	<i>Agree</i>	36.7%	31.6%	31.8%	23.4%
	<i>Strongly agree</i>	54.1%	64.2%	64%	74.5%
	TOTAL	100%	100%	100%	100%

Of the 852 fatal crashes on Missouri highways in 2005, an overwhelming 654 (77%) occurred in rural areas, where pickups are widely used.¹¹ With this knowledge at hand, our analysis focused on vehicle occupant attitudes toward seat belt use, broken down by male and female, controlling for rural vs. urban zip codes. TABLE 2 demonstrates survey data gathered from males and females in rural and urban areas, who were asked whether they would want to be wearing a seat belt in a crash (n=1,573).

In TABLES 2 and 3 it is most interesting to note that regardless of sex or vehicle type, drivers overwhelmingly state that in the event of a crash, they would want to have their seat belt on. Referring to TABLE 2, 89.4 percent of rural male respondents indicated they would “agree” or “strongly agree” that they would want to be wearing a seat belt in a crash. Similarly, 94.4 percent of urban males responded positively in the same two categories. Female drivers responded even more favorably, with 97.6 percent of rural and 96.9 percent of urban females saying they “agree” or “strongly agree” with the statement.

TABLE 3 bears out similar results, with 90.8 percent of male pickup drivers saying they “agree” or “strongly agree” that they would want to be wearing a seat belt in a crash. Among male non-pickup drivers, the number jumps to 95.8 percent. Females, again, respond more favorably, with 95.8 percent of female pickup drivers and 97.9 percent of non-pickup drivers saying they “agree” or “strongly agree” with the statement.

However, referring back to FIGURE 1, we see that about 40 percent of pickup drivers have not worn their seat belt while driving sometime within the past seven days.

CONCLUSION

Seat belt use across the nation is on the rise. Missouri’s current use rate is at 75.2 percent and trending upward, but still lags behind the national average. This report is narrowly focused on rural/urban drivers and pickup drivers and non-pickup drivers. The results of this analysis demonstrate that females generally have more favorable attitudes toward seat belt use, and that in the case of urban vs. rural, both male and female urban drivers had more favorable attitudes toward seat belts than rural drivers. Among pickup drivers and non-pickup drivers, non-pickup drivers had more favorable attitudes toward seat belt use. However, responses to the survey questions identifies a disconnect among pickup drivers in that a significant number indicated that they have not worn a seat belt at some point in the past seven days, but an overwhelming majority would want to be wearing one in the event of a crash. This indicates that an education campaign aimed at getting drivers to use seat belts would be best targeted toward pickup drivers, with rural male pickup drivers as the top target, followed by rural female drivers, then male urban drivers and, finally, female urban drivers. Effective campaigns might focus on educating drivers about the benefits of seat belt use, using statistics from the NHTSA as supporting evidence.

AUTHOR BIOGRAPHY

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