Traffic Safety Facts
Research Note

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2007 Motor Vehicle Occupant Safety Survey: Use of and Support for Emergency Medical Services Systems

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The Motor Vehicle Occupant Safety Survey (MVOSS) is a national telephone survey administered by NHTSA on a periodic basis to obtain data on attitudes, knowledge, and self-reported behavior primarily in areas of occupant protection. The sample is composed of randomly selected people 16 and older residing in the 50 States and the District of Columbia. People 16 to 39 are over-sampled to obtain more seat belt nonusers and more adults with children who should be using child restraints. The survey was first administered in 1994 and has been conducted five times since then. The most recent survey took place from January 9, 2007, to April 30, 2007.

The MVOSS is composed of two questionnaires, each administered to approximately 6,000 people. Questionnaire 1 focuses on seat belt use. It also contains shorter modules on air bags, drinking and driving, and driving speed. Questionnaire 2 focuses on children's use of restraints when riding in motor vehicles. It also contains shorter modules on driver education and graduated driver licensing (GDL), air bags, emergency medical services (EMS), and use of wireless phones while driving. Both questionnaires include a series of questions on crash injury experience as well as questions collecting basic demographic information. Prior to each administration of the survey, the questionnaires are updated to address new issues of concern, delete obsolete items, and revise questions as needed.

This Research Note summarizes selected results from the 2007 MVOSS. It covers new questions that were added that year to the EMS module in Questionnaire 2. The data are weighted to yield national estimates.

Calling an Emergency Number for Help

The survey asked respondents if they ever had personally called 9-1-1 or another emergency number for help. Weighted estimates based on their responses indicated that more than two-fifths (44%) of the total population 16 and older had done so. Table 1 shows variability across demographic groups, with females and African-Americans more likely to have called, and Hispanics less likely.

Table 1
Ever Called 9-1-1 or Another Emergency Number by Demographic Characteristics

	N-size[1]	Percent "Yes"
Total Population 16 And Older	6,010	44%
Sex		
Males	2,793	40%
Females	3,217	49%
Race		
African-American	561	52%
White	4,503	45%
Ethnicity		
Hispanic	634	33%
Non-Hispanic	5,297	46%

[1] N-size refers to the number of cases in the analysis.

Of those who had called an emergency number, two-thirds (66%) last did so a year or more ago. One-third (33%) had called within the past year.

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Overall, about one-seventh (14%) of the total population 16 and older had called 9-1-1 or another emergency number for help within the past year (33% of the 44% who had ever called).

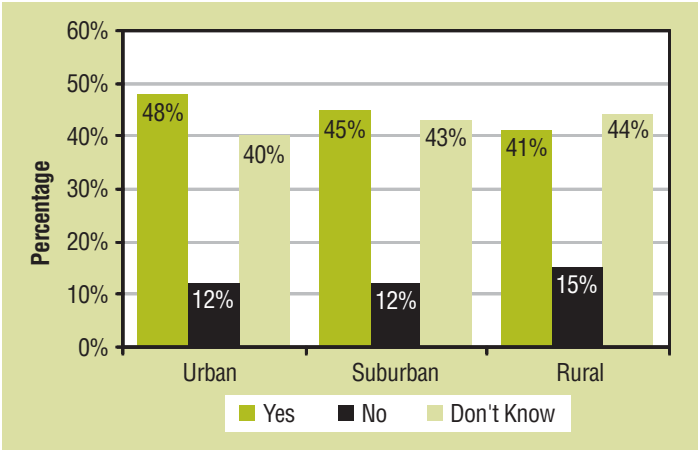
Most calls to emergency numbers were made using landline telephones (64%). But one-third (33%) were from wireless phones. About 2% of respondents were unsure. Not surprisingly, the percentage of emergency calls from wireless phones was greater in the recent past compared to the more distant past. When the last time an emergency call was made was a year or more ago, 30% of the callers had used a wireless phone. But when the emergency call was 1 to 12 months ago, then 39% of the callers had used a wireless phone. The percentage was 43% when the call was made less than a month ago.

Males (39%) were more likely than females (26%) to have used a wireless phone to call an emergency number. Whites (32%) and African-Americans (33%) did not appreciably differ in the likelihood of calling with a wireless phone, but the percentage of Hispanic wireless phone callers (38%) was somewhat higher than the percentage of non-Hispanics (33%). The latter result is consistent with information from other sources, such as the National Health Interview Survey, showing Hispanics more likely to reside in cell phone only households (data collected as part of a methodological experiment incorporated within the 2007 MVOSS showed similar results).

Perceived Ability of Call Center to Automatically Determine Phone Number and Location of Caller

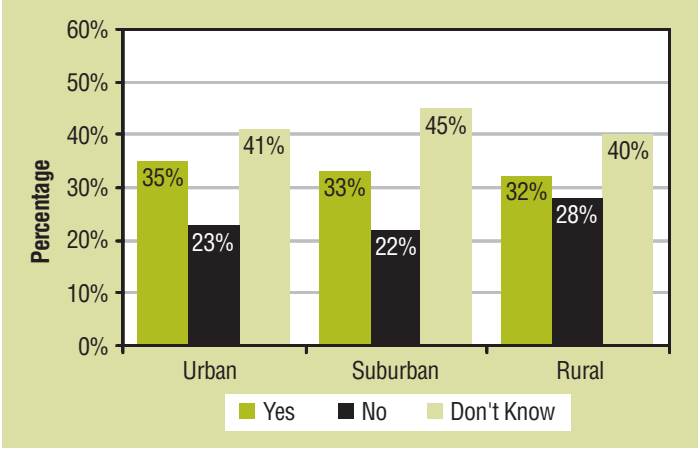
All participants in the survey, regardless of whether or not they had ever called an emergency number for help, were asked "If you used a cell phone to call 9-1-1 about an emergency in your community, can the 9-1-1 Call Center identify your phone number without you telling them?" Their responses showed substantial uncertainty among the general public. Almost as many people "Don't Know" if the Call Center can determine the cell phone number (42%) as believe "Yes" it can (45%). Only 12% believe "No," the Call Center can't automatically determine the cell phone number. Figure 1 breaks out the results according to whether respondents resided in urban, suburban, or rural locations. The Figure suggests that rural residents are least likely to believe that the Call Center can automatically identify the cell phone number.

Figure 1
Can 9-1-1 Call Center Identify the Phone Number of a Cell Phone Caller Without the Caller Telling Them?



All survey participants were similarly asked if the 9-1-1 Call Center could automatically identify the location of a caller who was using a cell phone to call in an emergency. They were less likely than with the phone number to believe this could be done: 34% Yes, 23% No, and 43% Don't Know. Figure 2 suggests rural residents are most likely to believe the location could not be determined.

Figure 2
Can 9-1-1 Call Center Identify the Location of a Cell Phone Caller Without the Caller Telling Them?



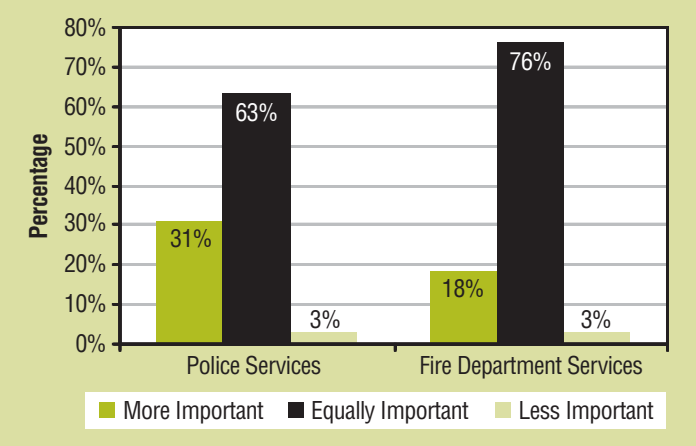
Compared to the general public (i.e., estimates based on responses from all survey participants), those who had called 9-1-1 about an emergency using a wireless phone were more likely to believe the Call Center could automatically identify a cell phone number (52% compared to the 45% noted previously). They did not differ from the general public in the percentage who thought the location could be determined (34%). But proportionally fewer were uncertain about the Call Center's ability to determine location (32% compared to 43%), and propor-

tionally more believed it could not be done (33% compared to 23%).

Importance of EMS Compared to Other Services

All survey participants were told that EMS includes everyone in the community who responds to medical emergencies, such as ambulances, rescue squads, and hospital emergency services. They then were asked "In your opinion, are emergency medical services more important, equally important, or less important to your community than the services provided by the police department?" A similar question comparing the importance of EMS to fire department services followed. Figure 3 shows that the majority of the public believe EMS is at least as important as police and fire services. Few (3%) believe it less important. The Figure does not include the 3% who did not know.

Figure 3
Perceived Importance of EMS Compared to Police and Fire Department Services



There was no indication that the comparative level of support for EMS was affected by whether the respondent had personally called 9-1-1 about an emergency. Those who had called 9-1-1 and those who had not did not differ in the percentages who considered EMS more important, less important, and equally important than police and fire department services (see Table 2). It did not appear to matter what type of service the 9-1-1 caller had requested. The percentages who considered EMS more important, less important, and equally important than police department services did not greatly change when looking at the subgroup of 9-1-1 callers who specifically asked for police. The same was true for the subgroup of 9-1-1 callers who requested fire department services.

Table 2
Perceived Importance of EMS Compared to Police and Fire Department Services by Whether Respondent Had Ever Called 9-1-1

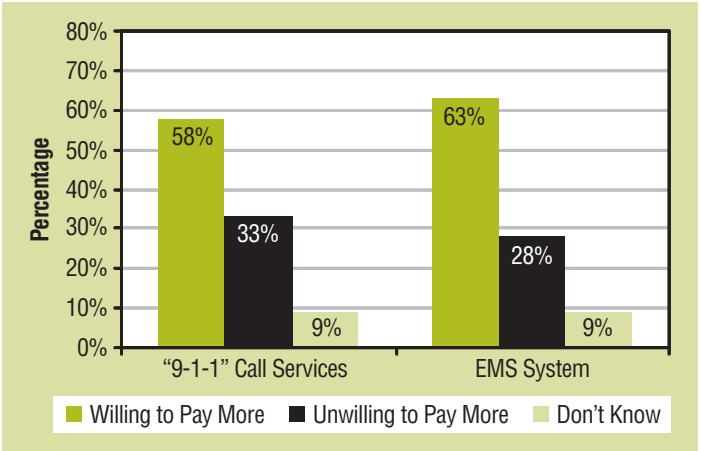
	More Important	Equally Important	Less Important
EMS Compared to Police Services			
Never Called 9-1-1	31%	63%	3%
Called 9-1-1	31%	63%	3%
Called for Police	28%	68%	2%
Called for Fire	32%	59%	4%
EMS Compared to Fire Services			
Never Called 9-1-1	18%	76%	3%
Called 9-1-1	17%	76%	3%
Called for Police	16%	79%	3%
Called for Fire	14%	76%	3%

N-sizes are Never Called 9-1-1 = 3223; Called 9-1-1 = 2767; Called for Police = 748; Called for Fire Dept. = 281

Willingness to Pay More for EMS

All survey participants were told that communities pay for 9-1-1 call services through fees or taxes collected from the public. They then were asked if they were willing or unwilling to pay more than they currently pay for 9-1-1 call services to locate callers faster. Similarly, all respondents were told that communities use other fees and taxes collected from the public to pay for their EMS systems, which include ambulances, rescue squads, and hospital emergency services. Again, they were asked their willingness to pay more, with the described objective being to improve EMS equipment and training. Figure 4 shows most people willing to pay more, with the percentage slightly higher for system charges (63%) compared to call services (58%).

Figure 4
Willingness to Pay More for Services



Those with household income less than $30,000 per year were least willing to pay more for 9-1-1 call services or the EMS system. But Table 3 shows a majority still willing to do so.

No major difference emerged between persons who had called 9-1-1 and those who had not in willingness to pay more for 9-1-1 call services; 60% of the former group were willing to pay more compared to 56% of the latter group. A 4-percentage-point difference was also obtained in willingness to pay more for the EMS system, with 65% of 9-1-1 callers and 61% of non-callers being willing to pay more.

Table 3
Willingness to Pay More for Services by Annual Household Income

	Willing	Unwilling	Don't Know
Pay More for 9-1-1 Call Services			
Under $15,000	52%	34%	13%
$15,000-$29,999	55%	35%	10%
$30,000-$49,999	63%	31%	6%
$50,000-$74,999	64%	30%	6%
$75,000-$99,999	60%	33%	7%
$100,000 or More	69%	25%	5%
Pay More for EMS System			
Under $15,000	62%	29%	9%
$15,000-$29,999	62%	29%	9%
$30,000-$49,999	69%	25%	7%
$50,000-$74,999	68%	27%	5%
$75,000-$99,999	67%	27%	6%
$100,000 or More	69%	25%	6%

N-sizes in ascending order of income level are 613, 801, 1063, 1018, 682, and 965.

How Much More Would Pay For EMS

Those who said they were willing to pay more for either EMS component were asked how much more they would be willing to pay per year: less than $5 more, $5-$10 more, $10-$20 more, or over $20 more. The most common response for both the 9-1-1 call services and EMS system was $5-$10 more. Table 4 shows greater willingness to pay more than $10 for the EMS system than for 9-1-1 call services. It also shows less than one-quarter of those at most income levels willing to contribute in excess of $20 more, exceptions being the highest income category of $100,000 and above (for both 9-1-1 call services and the EMS system) and the $50,000-$74,999 income range (EMS system only).

Table 4
How Much More Willing to Pay Per Year for 9-1-1 Call Services and EMS System by Annual Household Income (Among Those Who Said They Were Willing to Pay More)

	Less Than $5 More	$5 to $10	$10 to $20	Over $20 More
9-1-1 Call Services				
All Those Willing to Pay More	18%	41%	19%	18%
Under $15,000	25%	46%	15%	10%
$15,000-$29,999	18%	49%	16%	13%
$30,000-$49,999	20%	41%	20%	14%
$50,000-$74,999	16%	44%	19%	19%
$75,000-$99,999	16%	40%	23%	19%
$100,000 or More	15%	33%	21%	27%
EMS System				
All Those Willing to Pay More	10%	38%	24%	24%
Under $15,000	14%	45%	25%	12%
$15,000-$29,999	10%	48%	20%	18%
$30,000-$49,999	11%	38%	25%	21%
$50,000-$74,999	7%	37%	26%	28%
$75,000-$99,999	8%	35%	30%	24%
$100,000 or More	10%	28%	23%	38%

Discussion

Three basic findings stand out in the reported results: (1) a large percentage of the population has called 9-1-1 or another emergency number for help; (2) the public considers EMS as important, if not more important, than other basic safety services in their communities; and (3) the public is willing to pay more than they currently do to improve 9-1-1 call services and the EMS system. These are salient points for decision-makers to keep in mind as they devise funding strategies for 9-1-1 call services and for EMS.

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

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