



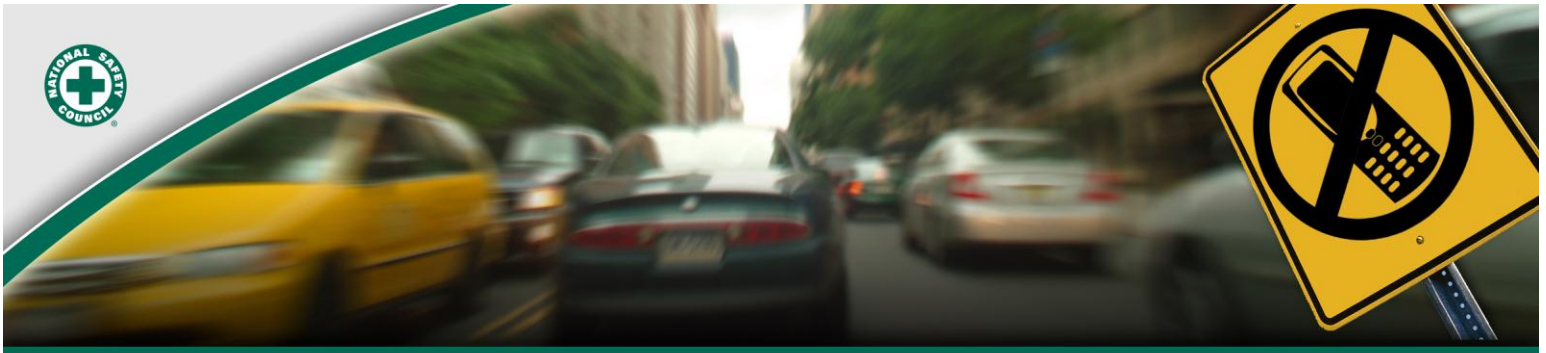
## Annual Estimate of Cell Phone Crashes 2012

The National Safety Council created the Annual Estimate of Cell Phone Crashes because data about cell phone use as a factor in motor vehicle crashes is currently under-reported. In jurisdictions where police attempt to collect this data, they must rely almost entirely on driver self-reports or witness reports of cell phone use at the time of the crash, resulting in significant under reporting.

The NSC estimate includes property damage only crashes as well as injury and fatal crashes.

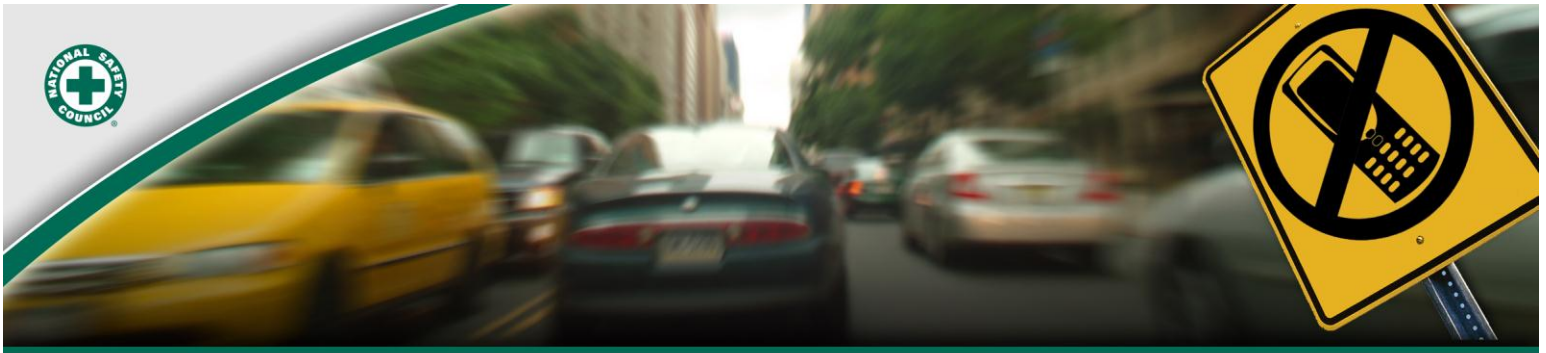
### ***Estimates***

- The NSC model estimates 21 percent of crashes or 1.2 million crashes in 2012 involve talking on handheld and hands-free cell phones.
- The model estimates an additional 5 percent or more crashes or a minimum of 281,000 of crashes in 2012 involve text messaging.
- Thus a total of a minimum of 26% of crashes involve drivers talking and texting on cell phones.

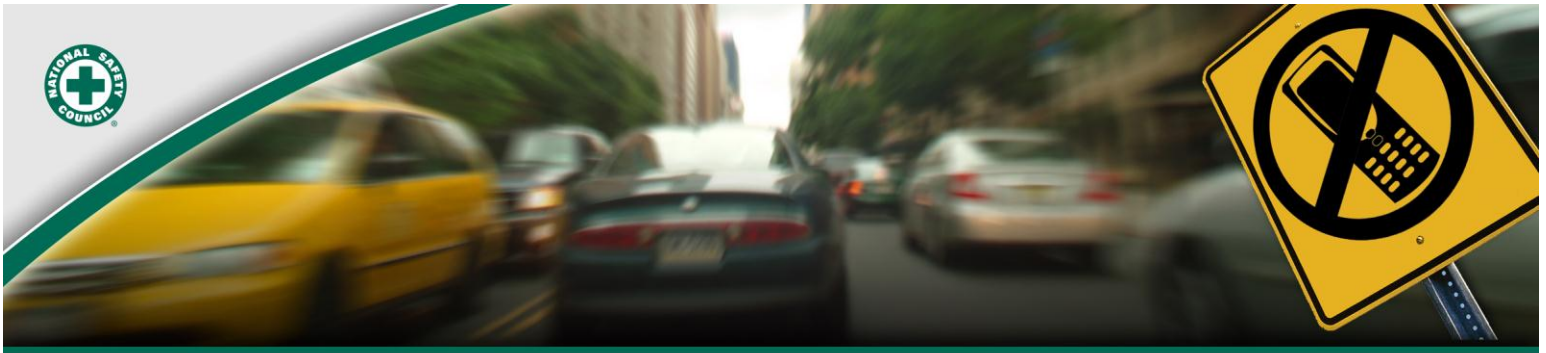


The following are frequently asked questions about the NSC Annual Estimate of Cell Phone Crashes:

Question	Annual Estimate	Source
<b>Background</b>		
How many total crashes were there in 2012?	5,615,000	2012 Motor Vehicle Crash Overview National Highway Traffic Safety Administration
NSC's estimate is based on an "attributable risk estimate model." What does attributable risk mean?	"Attributable" indicates that a behavior or circumstance is a contributing factor to a negative outcome.	
What is relative risk?	Relative risk is a measure of the risk of a certain event happening in one group compared to the risk of the same event happening in another group. Relative risk of one means there is no difference between two groups in terms of their risk. A relative risk of greater than one or less than one means an activity or circumstance either increases (relative risk greater than one) or decreases (relative risk less than one) the risk of the adverse outcome.	
What is an attributable risk percent estimate?	An attributable risk percent estimate is a mathematical model that estimates the percent of adverse outcomes that can be attributed to an unsafe activity or circumstance. The estimate is based on two factors: 1) the prevalence and 2) the relative risk of the unsafe activity or circumstance.	
Is attributable risk mutually exclusive?	Attributable risk estimates are not mutually exclusive. Multiple risks can attribute to one adverse outcome.	



Question	Annual Estimate	Source
<b>Cell Phones</b>		
How did the NSC estimate attributable risk percent for cell phones?	The NSC attributable risk percent estimate of cell phones is based on two factors: 1) the prevalence of drivers talking on cell phones and 2) the relative risk of this activity compared to not using cell phones while driving.	
What is the prevalence of drivers talking on cell phones in 2012?	9% of drivers during any daylight moment	Driver Electronic Device Use in 2012, National Highway Traffic Safety Administration
What is the relative risk of cell phone use while driving?	4 times as likely to crash risk (as measured by emergency department visits and property damage only crashes)	McEvoy et al (2005); Redelmeier & Tibshirani (1997)
What percent of fatal, injury and property damage-only crashes are likely attributable to talking on cell phones while driving in 2012?	21%	NSC Estimate
How many crashes likely involve drivers talking on cell phones in 2012?	1.2 million	NSC Estimate <ul style="list-style-type: none"> <li>• Estimate uses a similar set of assumptions as were used by Cohen and Graham (2003)</li> <li>• The attributable risk estimate based on emergency department visits was generalized to estimate crash numbers.</li> </ul>



Question	Annual Estimate	Source
<b>Text Messaging</b>		
What is the prevalence of drivers who are text messaging in 2012?	The prevalence of text messaging is not specifically measured, however it has been observed that 1.5% of drivers “manually manipulate” handheld devices at any given daylight moment. Because text messaging is only one of several activities in this category (e.g. dialing phone numbers); it is assumed the prevalence of text messaging is 1.5% or less. For the purposes of the NSC estimate it is being assumed that about half of the 1.5% of drivers or 0.75% are text messaging.	Driver Electronic Device Use in 2012, National Highway Traffic Safety Administration
What is the relative risk of text messaging while driving?	The relative risk of text messaging has not been studied to the same extent as it has for talking on cell phones. Two studies attempted to measure the relative risk of text messaging while driving. Because of methodological issues the applicability of these studies is limited. At this time no one risk level can be established for text messaging. Instead, a range from 8 to 23 times increased risk is currently the best estimate.	Drews et al (2009) and Olsen et al (2009)
What percent of crashes are likely attributable to text messaging in 2012?	5% to 14%	NSC Estimate
How many crashes are likely attributable to text messaging in 2012?	281,000 to 786,000 Because the relative risk estimates available for text messaging are either based on computer simulations or factors other than crashes, confidence in this estimate is low.	NSC Estimate