

Study Looks at How Motorists Pay Attention to School Buses

Written by Ryan Gray

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The [Child Safety Network](#) is sponsoring a multi-faceted study conducted by researchers at New Mexico State University to determine how motorists process "visual stimuli" while behind the wheel, and how that information affects their actions when encountering school buses.

Especially when illegal passing incidents occur.

Ward Leber, founder of CSN, told STN that the NASDPTS National Stop Arm Count conducted the past three years has been a literal eye-opener. Last year, 108,000 participating bus drivers in 29 states reported that 85,279 vehicles illegally passed at loading and unloading stops. NASDPTS extrapolated that, nationwide, 15 million motorists could be illegally passing school buses during an average 180-day school year.

CSN, which last year introduced its ["Safe Bus"](#) program that relies on corporate sponsorship to equip school buses with GPS and other technology at no charge plus driver and student training and PSAs for the industry using celebrity talent, used NASDPTS' number of reported violations for its study. When applying the group's number to all 480,000 school buses nationwide, CSN further estimated that the real number of illegal passing incidents might be closer to 68 to 81 million a year.

"We simply could not ignore the unprecedented results," said Leber.

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Why do these illegal passbys happen? Everyone seems to have an answer, ranging from motorists not caring or being lazy to being rushed to not understanding the law. But what Leber and Professor Michael Hout, the principal investigator of the Vision Sciences and Memory Laboratory at New Mexico State, told STN is that they hope the study for the first time provides concrete data on the phenomenon.

The study will include thousands of images, or visual stimuli, of every type, size and color of vehicle motorists might see on the road including school buses. They are loaded into lab computers and the eye movements of test subjects are captured by the latest state-of-the-art eye-tracking systems to identify exactly what motorists do and do not pay attention to and how the human brain processes that information.

"Our brains evolved in such a way as to maximize cognitive expenditure," said Hout. "When we drive to work each morning, many of us experience the common sensation that we remember very little about what happened on the drive there.

For example, he said motorists don't know how many left turns are made en route to work, how many coffee shops they pass or, for that matter, how many school buses they are sharing the road with. Such information, he added, tends to be irrelevant for most day-to-day driving activities, so it gets "tuned" out.

"It's almost certainly the case that people encounter a school bus, or even several of them, on their morning or afternoon commute. But if asked, they would be wholly unable to report any specific locations or details about the vehicle," Hout said. "The same is likely to be true if asked how many taxi cabs, FedEx trucks or Oak trees they glanced at while driving."

Leber said the study intends to reveal not only why school buses are being ignored but also determining how to make them more visible to the public as well as how or if motorists process graphics on the sides of vehicles. Leber added that CSN does not recommend school bus advertising and even said it should be illegal because of concerns about marketing to students and the risk it brings to districts of First Amendment lawsuits. Instead, he wants to place small graphics on the sides of school buses to recognize corporate sponsors who make it possible for districts participating in the CSN Safe Bus program to implement GPS, student tracking and parent notification free of charge.

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But first a formal scientific study is necessary. Leber said CSN would share results with the school bus industry via NASDPTS, NAPT, NSTA and the Pupil Transportation Safety Institute as well as with the U.S. Department of Transportation, NHTSA, TSA, the U.S. Department of Education, and the National PTA.

Leber and Hout said the final study would also be sent for peer review to at least a dozen universities across the nation with the hope it will eventually be accepted into a scientific journal.