

Government Science GREEN-LIGHTS Digital Billboards



By Ken Klein



It took years, but the federal government now says digital billboards are not distracting.

"On average, the drivers in this study devoted between 73 percent and 85 percent of their visual attention to the road ahead for both CEVMS (Commercial Electronic Variable Message Signs) and standard billboards," the Federal Highway Administration (FHWA) study noted. "This range is consistent with earlier field research studies. In the present study, the presence of CEVMS did not appear to be related to a decrease in looking toward the road ahead."

Background

As a matter of course, new ideas and new products prompt questions about safety. In early 2009, the FHWA published an 87-page report, pointing to the need for more research on digital billboards.

"The basic research question," the study noted, "is whether the presence of CEVMS along the roadway is associated with a reduction in driving safety for the public."

continued from last page

With Years Of Federal Research

- Where did this report come from?
- What does it say?
- What does it mean?

What was the best way to address this question? Examining a variety of research methods, this federal report concluded: "... the on-road instrumented vehicle study is the best choice as the recommended first stage in answering the basic research question."

Interestingly, FHWA's 2009 report that recommended the instrumented vehicle methodology was co-authored by Jerry Wachtel of Berkeley, Calif., a former FHWA staffer who sounded the alarm bell that same year about possible safety risks of digital billboards.

The research

The government (FHWA) hired a sophisticated, global technology firm to assist this complex research project: **Science Applications International Corporation (SAIC)** of McLean, Va.



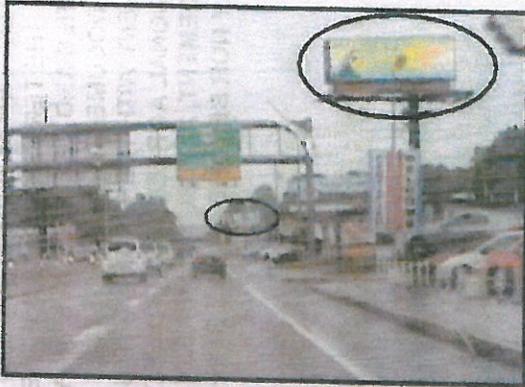
The 2007 Jeep Grand Cherokee used for the FHWA research included two IR light sources and three face cameras mounted on the dashboard to determine the driver's head. A three-camera panoramic setup provided an 80° by 40° field of forward view.



A data-collection zone for the test vehicle in Reading, Pa., where drivers encounter a single CEVMS.

continued from last page

Another data-collection zone in Reading, Pa., with two target CEVMS amid 10 other signs/displays.



An example of a Richmond, Va., data-collection zone with high visual complexity.



The NHTSA report on combating distraction featured a photo of the government's anti-distraction message on a digital billboard.

By September 2009, researchers were in the field, using a high-tech instrumented vehicle (Jeep Cherokee) to record eye glances in the direction of digital billboards. The first test market was Reading, Pa., which has varied terrain and a mix of digital and non-digital billboards, as well as on-premise signs.

By November 2009, the study progressed to a second test market: Richmond, Va. In each market, randomly selected drivers drove an instrumented vehicle on set routes; drivers were not informed of the subject or purpose of the study.

Summary released in 2012

On Feb. 14, 2012, FHWA released a summary and staff notes, responding to journalists' requests under the Freedom of Information Act (FOIA). The full study was not released until later.

In sum, according to FHWA staff, the report said:

- Drivers exhibited "positive behaviors in regard to external stimuli" by keeping their eyes on the road more than 80% of the time; and
- Time spent looking at digital billboards was "well below accepted 'concern' thresholds."

FHWA didn't release its full report until Dec. 30 last year, during a holiday lull. One reason for the delay: The agency referred its report to peer review and then spent months tinkering with the report to respond to criticism.

continued from last page

The final report – like the summary released in 2012 – said the maximum glance in the direction of a digital billboard was 1.3 seconds. This finding supports FHWA's summary that digital billboards are "well below accepted 'concern' thresholds."

In this context, the "threshold" is 2 seconds. In 2006, FHWA's sister agency, the National Highway Traffic Safety Administration (NHTSA) released a [major distraction report](#) that said "glances totaling more than 2 seconds for any purpose increase near-crash/crash risk by at least two times."

Epilogue . . . what else was going on?

The focus on safety remains intense, with government, the insurance industry, and academia exploring distraction. The AAA Foundation for Traffic Safety points to distractions *inside the vehicle*. For example, speech-to-text systems are considered risky.

In April 2010, then- U.S. Secretary of Transportation Ray LaHood announced pilot programs in Hartford, Conn., and Syracuse, N.Y., to crack down on texting and phoning while driving. Could high-visibility enforcement, combined with heavy public education, change driver behavior?

In Hartford, the government's paid-media mix



SAIC, the firm contracted to do the study, promotes its services with a digital billboard.

included safety messages on digital billboards. In July 2011, NHTSA published a report that its high-visibility effort produced dramatic declines in texting and hand-held phoning, particularly in Hartford. And, page four of the report features a photo of the government's anti-distraction message on a digital billboard.

Meanwhile, SAIC – the worldwide technology company hired by the government to study digital billboards and traffic safety – also delivered its message via digital-billboard advertising: "Smart

People Solving Hard Problems."

Two days before FHWA posted its full report on digital billboards late last year, the FBI posed this question: Could the FBI activate digital billboards in a dozen-plus states on behalf of public safety, as part of a manhunt for a cop-killing bank robber?

Of course. Since 2008, tips generated by FBI alerts on digital billboards have resolved 51 FBI cases.

Ken Klein is executive vice president of OAAA



