

THE VERIDIAN GROUP, INC.

The San Antonio Digital Billboard Moratorium: Contacts with San Antonio Staff and Recommendations

In early October of 2008, I was contacted by Mr. David Simpson of the San Antonio Department of Planning and Development. He explained that the City had enacted a moratorium on the conversion or construction of digital billboards (DBBs) and that it was planning to use the moratorium period to conduct a research study into the possible safety impacts of DBBs. He had apparently been asked to contact me for advice and recommendations about the planned study.

He described the study to me as one in which the City would collect accident (crash) data for a period of three months prior to the dates of conversion of conventional billboards to DBBs, and three months after the conversions. The City would then compare the accident statistics to determine whether the DBBs were the cause of increases in accidents. There were 15 billboards that were to be converted, and they were to be the ones studied.

I explained to Mr. Simpson that, in my opinion, and in the opinion of others who have written on this subject, accident studies such as this in, general, and particularly those collecting data for only a six month total period, would not produce meaningful results, for several reasons. These included:

1. Because accidents occur infrequently, the numbers of such accidents obtained during such a short period of time were unlikely to yield results that could be analyzed with any degree of statistical confidence. Indeed, a recently publicized study conducted in Cleveland, Ohio, had been criticized for this same reason, and its data collection period was three years (18 months prior to, and 18 months post conversion).
2. The vast majority of accidents (estimated to be as high as 80%) are never reported to police. Thus, any study relying on police traffic collision reports would substantially underestimate the true number of accidents.
3. A driver involved in an accident resulting from his or her inattention or distraction (such as might result from viewing a roadside billboard), is unlikely to admit this distraction, for fear of being found at fault with consequential penalties such as increased insurance rates, points on one's driver's license, etc.
4. Research shows that, in most cases, drivers are unaware of having been distracted by stimuli that are irrelevant to the driving task. (In most cases, drivers do not even recall passing official traffic signs, despite data that shows that the signs were obeyed).

5. Unless a particular accident results in major personal injury or property damage, police investigations are likely to be cursory, and are unlikely to seek or find the underlying (root) cause.

6. When documenting an accident that does not have major personal injury or property damage, police are likely to identify the accident location as the point where the vehicle(s) came to rest (POR), rather than the point at which a driver first became distracted or first lost control. In freeway accidents, where higher speeds are likely this disparity between the point of distraction/inattention and the point of rest, may be substantial. Thus, a review of traffic collision reports is likely to misidentify the possible relationship between a billboard-related distraction and an accident. Worse, this erroneous coding may result in an artificially lower connection between billboards and accidents because it will assign such accidents to non-billboard locations.

7. Without a thorough knowledge of other factors that might have been present during the data collection period before and after the billboard conversion, there is no way to know whether any change to the crash rate was attributable to this conversion or to other factors. For example, were there weather-related accidents during this time period? Was there any roadway construction or repair? Was there a greater law enforcement activity for any reason? Were there major traffic generating events (concerts, sporting events, hurricane evacuations, etc.) that could have impacted traffic movement and crashes?

I pointed out to Mr. Simpson that, because of these factors, not only would the City be unable to answer the question of whether there was any change in accidents due to billboard conversions, but the lack of significant findings would likely be misrepresented and misused. Specifically, as has been the case in previously reported before-and-after accident studies, a lack of demonstrable results would likely be reported as “the conversion from conventional to digital billboards did not result in an increase in accidents.” Such a conclusion would be statistically unsupportable, but would likely be used to “prove” that DBBs do not cause accidents. Because the lay public, regulators, and even the courts, do not fully understand the rather complex factors that weaken these studies, these erroneous statements often are accepted because they are unchallenged. The outdoor advertising industry has used this argument in the past, even after it has been clearly informed of its misuse of such data.

In response to his request, I pointed out to Mr. Simpson that there were other research methods that were available to the City that might provide more reliable and valid results. I offered some detail about research methods that might involve a small number of drivers in instrumented vehicles, or, more appropriately in my opinion, given the City’s limited time and budget available for the work, a study that would involve the unobtrusive observation/measurement of vehicles in the traffic stream approaching and passing the billboard locations by using existing video cameras that might be part of the City’s traffic monitoring system. Mr. Simpson mentioned that the City had, in place, a

January 17, 2009

series of video cameras that were used as part of such a system, and I suggested that, depending upon the location of these cameras and their placement relative to the subject billboards, these might prove to be an excellent source of traffic data that could be analyzed to detect differences in performance such as speed variance, reduced headways (following distances), lane exceedances, sudden braking, unsafe lane changes, etc.

In response to his request, I told Mr. Simpson that I could be available to assist the City with its research design or conduct. I also recommended that he contact two experts in this field who might be able to provide an independent assessment of the City's proposed research strategy, and might also be available to assist the City with the design and conduct of its research. I provided him with the names and contact information for Neil Lerner, Ph.D., the director of human factors research in transportation at Westat Corporation in Rockville, Maryland, and Susan T. Chrysler, Ph.D., a Research Scientist at the Texas Transportation Institute's Center for Transportation Safety.

Following my conversation with Mr. Simpson, I contacted Drs. Lerner and Chrysler on October 9th to brief them on my discussions with Mr. Simpson and to indicate that he would likely be calling them. I later learned that Mr. Simpson contacted both individuals and had a very brief discussion with each. Neither Dr. Lerner nor Dr. Chrysler came away from their conversation with an understanding of what Mr. Simpson was seeking, and neither of them ever heard from him again.

Since my initial discussions with Mr. Simpson, I have called him on three occasions in an effort to follow-up and to learn whether I could be of further assistance. I have left messages on his voice mail on each occasion, and he has never returned my calls.

Respectfully submitted,

(Original signed by)

Jerry Wachtel, President
The Veridian Group, Inc.