# TRAFFIC TECH

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## PASSIVE ALCOHOL SENSORS TESTED IN 3 STATES FOR YOUTH ALCOHOL ENFORCEMENT

Enforcing zero tolerance or low BAC laws for under 21 age drivers presents new challenges for law enforcement officers. It is more difficult to detect the smaller amounts of alcohol that constitute a zero tolerance violation. A young driver just above a limit of, say .02%, may not exhibit traditional cues like slurred speech and the officer may miss a faint smell of alcohol. In addition, the officers' training, focus, and experience have traditionally targeted drivers who are over the adult limit of .08 or .10%, or drivers who show obvious signs of impairment.

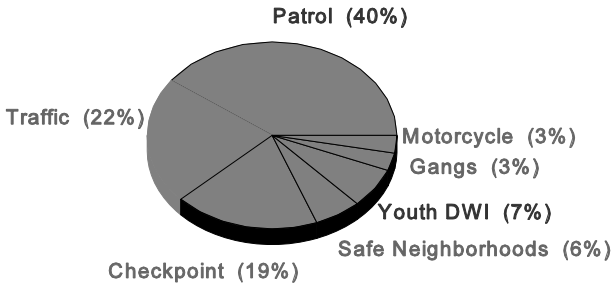
A promising technology for enhancing impaired driving enforcement, especially at lower BAC levels, is the *passive alcohol sensor*. The sensors are designed to sample the air immediately around the suspect for signs of exhaled alcohol -- the same air that is available to the officer's nose. Rather than giving a precise BAC level, sensors typically indicate the presence of alcohol, but not the amount.

Passive alcohol sensors have been evaluated in laboratory settings, at sobriety checkpoints, and in some limited police applications. The National Highway Traffic Safety Administration (NHTSA) sponsored a field evaluation of several different passive alcohol sensor devices to assess their use as part of normal or typical police operations. This study involved the basic acceptance of the devices on their own merits, as well as, once used, how effective they were. The study focused on youth alcohol enforcement.

Three municipal police agencies located in states with zero tolerance laws participated in the study. Chandler, Arizona; Hamilton Township, New Jersey; and Murfreesboro, Tennessee are all mid-sized agencies with a sworn officer strength of about 100 or more officers. At the time the study began, three manufacturers were marketing passive sensors for use by police agencies. Each police agency worked with each type of unit for about two months. Sensors were used on routine patrols, checkpoints, motorcycle and bicycle patrols, gang intervention, a Safe Neighborhoods Unit (similar to gang or drug intervention units), and a special youth DWI and drug enforcement unit.

### 27 Percent of Sensor Uses Were Positive

The sensors were used about 1,000 times in an enforcement context during the 6 month field trial. Most uses (83 percent) were for drivers contacted as part of routine patrol or traffic operations.

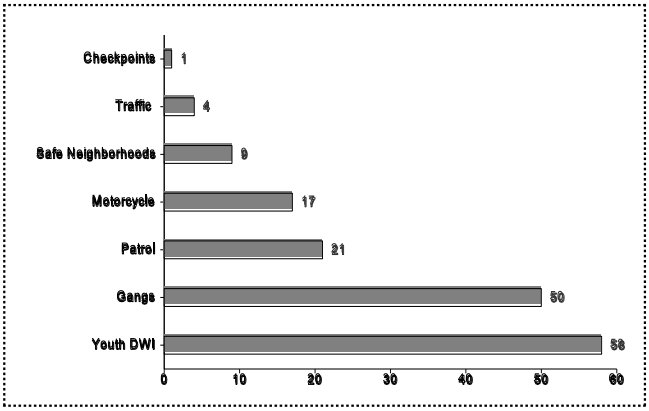



***How passive sensors were used by officer duty assignment***

About 27 percent of all deployments resulted in a positive BAC reading and about 16 percent of all tested suspects were charged with an alcohol related violation. Of those with any positive BAC reading on the sensor, about 60 percent were charged. An alcohol charge was more likely for persons under the age of 21. The next figure shows arrests made by the type of enforcement activity, including non-traffic related alcohol arrests. Uses involving more underage persons, such as the gang patrols and youth DWI,

yielded alcohol-related arrests half of the time.

***Percentage of cases leading to alcohol-related arrests***




**Total DWI Arrests Did Not Change**

The total number of underage liquor law and DWI arrests across jurisdictions did not show changes when compared to preceding time periods.

**Sensor Use Declined Over Time**

Use of the sensors declined substantially over time, regardless of the type of sensor and in every one of the police agencies. About half of all uses occurred during the first two month test period; one third during the second; and one sixth during the third.

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**Officer Reactions to Passive Alcohol Sensors**

Officers and their departments were positive overall about the sensors, but there were differences between situations and devices. The report catalogues comments and suggestions specific to each device. Officers were concerned about officer safety when using the devices for initial screening in normal traffic stops. Participating officers said passive alcohol sensors were particularly useful in four situations.

1. Sobriety Checkpoints
2. Crash investigations after securing the location and obtaining treatment for the injured
3. Underage liquor law and zero tolerance violations
4. School and community presentations

Sensors were viewed as less useful for routine patrol operations which largely accounts for their decline in use over time.

**HOW TO ORDER** ● ● ● ● ● ● ● ●

Limited copies of the ***Effectiveness of Passive Alcohol Sensors***, (58 pages plus appendices) prepared by Preusser Research Group of Trumbull, CT are available. Write to the Office of Program Development and Evaluation, NHTSA, NTS-33, 400 Seventh Street, S.W., Washington, DC 20590, or send a fax to (202) 366-7096. Linda Cosgrove, Ph.D., was the contract manager.