

**A FLORIDA VALIDATION
STUDY OF THE
STANDARDIZED FIELD
SOBRIETY TEST (S.F.S.T.)
BATTERY**

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I. INTRODUCTION

During the years 1975-1981, a battery of field sobriety tests was developed under funding by the National Highway Traffic Safety Administration (NHTSA), U.S. Department of Transportation (Burns and Moskowitz, 1977; Tharp, Burns, and Moskowitz, 1981). The tests include Walk-and-Turn (WAT), One-Leg Stand (OLS), and Horizontal Gaze Nystagmus (HGN). NHTSA subsequently developed a training curriculum for the three-test battery, and initiated training programs nationwide. Traffic officers in all 50 states now have been trained to administer the Standardized Field Sobriety Tests (SFSTs) to individuals suspected of impaired driving and to score their performance of the tests.

At the time the SFSTs were developed, the statutory blood alcohol concentration (BAC) for driving was 0.10% throughout the United States. The limit now has been lowered in a number of states to 0.08% for the general driving population. "Zero tolerance" is in effect in some jurisdictions for drivers under age 21, and commercial drivers risk losing their licenses at a BAC of 0.04%. It is likely that additional states will enact stricter statutory limits for driving. In light of these changes, a re-examination of the battery was undertaken by McKnight et al. (1995). They reported that the test battery is valid for detection of low BACs and that no other measures or observations offer greater validity for BACs of 0.08% and higher.

The three tests have been incorporated into Drug Influence Evaluations (DIEs) which are conducted by certified Drug Recognition Experts (DREs) whenever an individual is suspected of being drug-impaired. As part of a DRE evaluation, the SFSTs provide important evidence of drug impairment and contribute to the DRE's three-part opinion:

- Is the individual impaired by a drug or drugs?
- If yes, is the impairment drug-related?
- If yes, what category or categories of drug account for the impairment?

A study was conducted in Colorado to examine the validity of the SFSTs when used by experienced officers in the field (Burns and Anderson, 1995). The design of the study insured that roadside testing was limited to the three-test battery, and that officers' decisions were not influenced either by the driver's performance of other behavioral tests or by measurement of BAC with a preliminary breath tester (PBT). The obtained data demonstrated that more than 90% of the officers' decisions to arrest drivers were confirmed by analysis of breath and blood specimens.

A recently-reported NHTSA-funded study was conducted by Anacapa Sciences, Inc. in collaboration with the San Diego Police Department to examine the validity of the SFSTs for both 0.08% and 0.04% (Stuster and Burns, 1997). Officers' estimates of whether a driver's BAC was above or below 0.08% or 0.04% were found to be more than 90% correct.

The Colorado and California studies provide relevant and current field data. The validity of the tests when they are administered in the context of drug evaluations was examined in a retrospective analysis of the records of the Phoenix DRE Unit (Adler and Burns, 1994). It was found that a suspect's performance of the tests provides valid clues of drug impairment.

The study reported here was conducted in collaboration with the Pinellas County Sheriff's Office (PCSO) and expands the examination of the SFSTs to the State of Florida. An overview of PCSO and the demographics for Pinellas County can be found in Appendix I.

II. STUDY BACKGROUND AND RATIONALE

During the early years of SFST use by law enforcement, legal challenges were relatively infrequent. For more than a decade now, however, defense counsel in many jurisdictions has sought to prevent the admission of testimony about a defendant's performance of the three tests. The objections, which continue to be persistent and vigorous in 1997, typically focus on test validity and reliability as demonstrated in the original laboratory research. It is entirely appropriate to inquire whether that early research to identify a best set of sobriety tests was conducted with scientific rigor. Beyond that inquiry, however, the data, which were obtained in a laboratory setting and now are more than twenty years old, are of little interest. Certainly, they are only marginally relevant to current roadside use of the tests. The questions which begs to be addressed in 1997 is whether the tests are valid and reliable indices of the presence of alcohol when they are used at roadside under present day traffic and law enforcement conditions.

Experience and confidence have a direct bearing on an officer's skill with roadside tests. In this regard, note that the officers who participated in the early SCRI studies had been only recently and briefly (4 hrs) trained to administer the test battery. There had been no time for them to use the tests in the field where they might have developed confidence in decisions based on them. Nonetheless, their decisions were 76% correct in the first study and 81% correct in the second study.

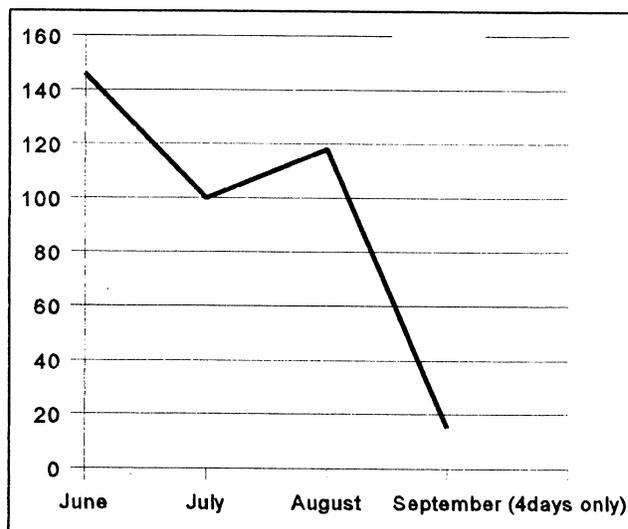
At this point in time, many traffic officers have had ten or more years' experience with the test battery and many report that they confidently rely on them. Since it seems unlikely in the extreme that they would continue to rely on tests which repeatedly lead to decision errors, it is a reasonable assumption that more often than not their roadside decisions *to arrest* are supported by measured BACs. Whether their decisions *to release* are correct is largely unknown since the released driver's BAC generally is not measured.

Traffic officers are charged with the detection and arrest of impaired drivers. Although their roadside duties are central to roadway safety, recognition of alcohol-impaired drivers can be difficult and is, therefore, subject to error. If officers are to effectively meet this particular enforcement responsibility, they need to augment their general observations of suspects with sensitive, accurate sobriety tests. The tests not only aid in the removal of dangerously impaired drivers from the roadway, they also protect the driver who is not alcohol or drug impaired from being improperly detained. Thus, rigorous examinations of the SFSTs are important to traffic safety.

V. RESULTS

The first record in the data base is for an arrest which occurred on June 1, 1997, and the last record is dated September 4, 1997. During the study period, 379 records were submitted for the study. Figure 3 graphs the total number of records by month. As expected, the initial activities generated enthusiasm among participants, and the largest number of citizen contacts occurred during the first project month. Although available time of participating officers was affected during July and August by scheduled training days and vacations, and although it typically is difficult to sustain the initial high interest level, the actual decline in arrests over the extended project period was not large. The final month is not comparable, since data collection extended only a few days into September.

FIGURE 3
SFST Records by Month



A. Total Sample and Measured BACs

Table 3 summarizes the disposition of 379 records obtained during this study. As can be seen in the table and in Figure 4, the BACs of 256 drivers were measured. Thus, BACs are available for 81.8% of the 313 cases entered into an analysis of officers' decisions. Evidential testing at the booking facility accounts for 210 of the BACs. Forty-six were obtained with a Preliminary Breath Testing (PBT) device. A log of all cases appears in Appendix IV.

VI. SUMMARY AND DISCUSSION

Legislators have lowered the limits for alcohol levels in drivers from 0.15%, which was the very early standard, to 0.10% or 0.08%. The lower statutory limits are soundly based in data from scientific experiments and from epidemiology and are an important step toward safer roadways. Whether their *full* potential for reducing alcohol-involved crashes can be reached, however, depends on effective enforcement. Failure to enforce a statute, whatever the reason for the failure, weakens that statute and may actually render it counterproductive to some degree.

Traffic officers are the first link in the series of events that brings a DUI driver into the criminal justice system. Unless officers are able to detect and arrest impaired drivers, those drivers will not experience the sanctions which are intended to deter impaired driving. Although there are many aspects to effective DUI enforcement, certainly it is crucial for officers to be proficient in assessing the alcohol impairment of drivers they detain at roadside.

As an aid to their roadside decisions, officers rely upon a battery of tests, the SFSTs, to augment their general observations of a driver. At this point in time, no other tests have been shown to better discriminate between impaired and unimpaired drivers. Nonetheless, the battery, and in particular Horizontal Gaze Nystagmus, frequently is attacked vigorously during court proceedings. Thus, the examination of officers' decisions, based on the SFSTs, is of considerable interest.

If it can be shown that officers' reliance on the tests is misplaced, causing them frequently to err, then the officers, the courts, and the driving public need to be aware that the tests are not valid and that DUI laws are not being properly enforced. If, on the other hand, it can be shown that officers typically make correct decisions, based on the SFSTs, perhaps the legal controversy that has centered on them for more than a decade can be diffused and court time can be devoted to more substantive issues.

The data obtained during this study demonstrate that 95% of the officers' decisions to arrest drivers were correct decisions. Furthermore, 82% of their decisions to release drivers were correct. It is concluded that the SFSTs not only aid police officers in meeting their responsibility to remove alcohol-impaired drivers from the roadway, they also protect the rights of the unimpaired driver. These data validate the SFSTs as used in the State of Florida by Pinellas County Sheriff's deputies who have been trained under NHTSA guidelines. SFST validity now has been demonstrated in Florida, California (1997) and Colorado (1995). There appears to be little basis for continuing legal challenge.

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