Scientific Studies of the Standardized Field Sobriety Tests

1977
Laboratory
Los Angeles, CA

1981
Laboratory/Field
Los Angeles, CA

1983
Field
MD, VA, NC, & DC

1995
Field
Colorado

1997
Field
Florida

1998
Field
San Diego

NHTSA & SCRI
Goal: To identify the most reliable FSTs

Purpose: Evaluate current FSTs being used and determine best tests to evaluate intoxication and driving Impairment. 238 drinkers, 10 officers tested multiple FSTs. Results identified HGN, WAT, OLS as the "best tests." This study listed Romberg Balance, Finger to Nose, and Finger Count as "optimal tests."

NHTSA & SCRI
Goal: To asses the effectiveness of SFSTs In relation to BACs above/below .10%

Purpose: To complete lab development and validation of SFSTs and asses Effectiveness of SFSTs in evaluating drivers with BACs of .10% or greater. 297 Drinkers and 10 officers were used. Officers able to correctly classify BACs Of .10% 81% of the time when utilizing the three test battery.

NHTSA & SCRI
Goal: Field test SFSTs and determine Accuracy rating for each SFST

Purpose: Field test SFSTs. 1506 drivers stopped and three test battery given 80% of the time. Accuracy ratings for each SFST established and based on a minimum of clues observed on each test in relation to BACs .10% of greater.

HGN– 4/6 clues present = 77% accuracy at .10% or greater
WAT– 2/8 clues present = 68% accuracy at .10% or greater
OLS– 2/4 clues present = 65% accuracy at .10% or greater
HGN + WAT = 80%

SCRI and State of Colorado
Goal: Provide data analysis on accuracy of SFSTs in cold weather

Purpose: To test accuracy of officer's decisions to arrest when Using the three test battery. 234 drivers tested. 93% of them Were correctly assessed with BACs of .05% or greater. Further substantiated validity/reliability of SFSTs.

NHTSA & SCRI
Goal: Filed test SFSTs to gauge accuracy For BACs of .08% or greater

Purpose: Test accuracy of SFSTs with BACs at the .08% level. 379 drivers tested. Officer's decisions to arrest were correct 95% of the time and further validated reliability of the three test battery

NHTSA & Anacapa Sciences
Goal: Test officer's abilities to discriminate At BACs Below .10% and specifically Between .04% and .08%

Purpose: Test Accuracy of SFSTs at BACs below .10%. 297 drivers tested, officers able to determine if person was .08% or greater 91% of the time. Officers also able to determine if a person's BAC was Greater than .04% but less than .08% 80% of the Time.

HGN –4/6 clues present = 88% accuracy at .08% or greater
WAT –2/8 clues present = 79% accuracy at .08% or greater
OLS –2/4 clues present = 83% accuracy at .08% or greater