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TITLE: A Typological Analysis of California DUI Offenders and DUI Recidivism Correlates

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PROJECT OBJECTIVE:

To develop and cross-validate a statistical methodology for predicting DUI recidivism and DUI countermeasure-program compliance of convicted DUI offenders; to determine the extent to which meaningful subgroups of OUI offenders can be formed.

SUMMARY:

OUI offender clustering patterns (i.e., number of clusters/groups) were investigated using *K-means* analysis of data collected from 2,892 first-time and repeat DUI offenders. A nine-cluster solution based upon the psychometric data provided the most intuitively appealing typology. These DUI offender subtypes were established largely on the basis of personality and attitudinal similarities and were characterized on the basis of their average scores on psychometric and nonpsychometric variables. Descriptive titles were assigned to each of the nine clusters: (1) Negligent Operator, (2) Pre-DUI Alcoholic I, (3) DUI Alcoholic, (4) Pre-DUI Alcoholic II, (5) Mid-Life Crisis Problem Drinker, (6) Deceptive Problem Drinker, (7) White-Collar Controlled Problem Drinker, (8) Blue-Collar Controlled Problem Drinker, and (9) Social-Normative Problem Drinker. Statistically significant differences in subsequent four-year accident and conviction rates were found among the nine psychometric clusters. The psychometric subtypes identified in this report show many similarities to subtypes identified by other investigators, particularly the "Dill Alcoholic" and "Controlled Problem Drinker" subgroups. The results of the cluster analysis based upon the nonpsychometric data are also presented in the report.

DUI recidivism prediction analyses were conducted for a combined group of 7,316 first-time and repeat offenders. Predictors were selected from the driver record, criminal record, intake interview, and Life Activities Inventory variable domains, both separately and in combination. For most analyses, the recidivism measure was a composite of major convictions (DUI, reckless, hit-and-run) and nighttime (6 p.m. - 6 am) and alcohol-related accidents. In almost all cases, the prediction of recidivism was highly significant for both the main sample and the 25% cross-validation sample. The maximum prediction of composite recidivism ($R = .246$) was slightly less than the maximum prediction of DUI recidivism ($R = .271$). Additional analyses were performed for first-time and repeat offenders separately partitioned into quartiles based on their predicted composite recidivism score. The differences among quartile means on a number of relevant traffic safety measures were highly significant. It is conjectured in the report that two constraints unavoidably limited the predictability of recidivism: the homogeneity of the DUI offender population and the low statistical reliability of the measurement of recidivism. Of the two, the latter was considered likely to have had the most pronounced effect. This issue is extensively discussed in the report, and an alternative approach using canonical correlation analysis of composite recidivism is assessed.

Analyses of the prediction of DUI treatment program compliance were conducted separately for four of the repeat-offender treatment groups. Discriminant function analyses of the compliance / noncompliance dichotomy were performed. In all cases, the prediction of compliance for repeat offenders was highly significant statistically. The proportional reductions in the error of classification over that offered by model group assignment ranged from about 10% to 60%. In general, noncompliance was much more predictable than subsequent DUI recidivism.

IMPLEMENTATION STATUS OF FINDINGS AND RECOMMENDATIONS:

Not applicable.

SUPPLEMENTARY INFORMATION:

An abbreviated version of this report was published in the *Proceedings of the 34th International Congress on Alcoholism and Drug Dependence* (1985). A modified version of this paper entitled Psychometric and biographical correlations of drunk driving recidivism and treatment program compliance, containing some previously unpublished results can be found in Peck, Arstein-Kerslake, & Helander, *Journal of Studies of Alcohol*, 55,667-678, 1994.