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Enforcing Underage Drinking Laws Field-Initiated Research and Evaluation (FIRE) Program

Identifying Effective Environmental Strategies: An Overview for Practitioners

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1 Introduction

Underage drinking is a persistent threat to the health and well-being of young people and has substantial costs for society. Environmental strategies that change the context surrounding underage drinking behavior show evidence of effectiveness, but the field needs more research on which strategies are most effective and under what circumstances. The Office of Juvenile Justice and Delinquency Prevention (OJJDP) has supported an environmental strategies approach since 1998 by providing block grants to all States and the District of Columbia to operate the Enforcing Underage Drinking Laws (EUDL) program. The EUDL program is designed to “enforce State laws prohibiting the sale of alcoholic beverages to minors and to prevent the purchase or consumption of alcoholic beverages by minors”. Over the years until just recently Congress has appropriated \$25 million have been appropriated annually for these efforts. In addition to block grants, some States have received additional funds through a EUDL discretionary grant program, focusing on various subpopulations such as underage Air Force members and youth living in rural areas.

To date, while some of the EUDL discretionary grant programs have been evaluated, including one study that used a randomized controlled trial approach, there has been no systematic evaluation of the impact the States have had in using their EUDL block grant funds to reduce underage drinking and associated misconducts. However, over the last twelve years, OJJDP has amassed a rich source of EUDL performance measures data from all States and the District of Columbia, which were submitted semi-annually on the use of grant funds and the activities implemented.

The overarching purpose of the current study is to identify effective environmental strategies that have been implemented by the States and reported via the performance measures.

2 Identifying Effective Environment Strategies

The purpose of the study for which OJJDP has awarded ICF a grant is to enhance the understanding of the environmental strategies that are most effective in changing alcohol-related attitudes and behaviors of underage youth. The study has two major phases.

- In the first phase, we will build a consolidated database that includes: a) all EUDL block grant activities implemented by States from 2008 to the -present; b) alcohol-related outcomes from extant sources (e.g., national surveys of youth, campus liquor law violations, traffic accidents); and, c) relevant community-level covariates across the same time period.
- In the second phase, we will use the database to test specific hypotheses about the relationship between EUDL interventions and youth outcomes within and across States, while controlling for shifts in the population demographics. Study results will be used to inform policy and practice through disseminating findings to the field through a final report and peer-reviewed publications.

2.1 Research Questions

Our study is designed to answer the following research questions:

1. Using the database of EUDL activities and State-level outcome measures that will be built in this project, which intervention elements are most effective or least effective at changing attitudes, behaviors, and outcomes of underage youth? In short, what works? Which widely used approaches are not producing the intended outcomes?
2. What patterns of effectiveness emerge within and across States? Under what circumstances do certain environmental strategies seem to be most effective?

3. What can be learned from this research that policymakers, program planners, and the research community can use to augment policy and guide the development of effective interventions? What are the practical applications?

2.2 Study Goals and Objectives

Exhibit 1 presents the performance measures we will use to monitor the accomplishments of our study goals and objectives.

Exhibit 1. Study Objectives and Goals		
Objectives	Goals	Performance Measures
1) Build a database of EUDL activities implemented by States through their block grants since 1998 and submitted to OJJDP via performance measures	<ul style="list-style-type: none"> • The impact will be to develop measures of type, location and dosage of EUDL activities within and across States and identify how States spent funds 	<ul style="list-style-type: none"> • Semi-annual progress reports on database development • Final delivery of database to OJJDP
2) Validate and fill in missing data in the database of EUDL activities by conducting extensive follow-up communication with EUDL State coordinators	<ul style="list-style-type: none"> • The impact will be to produce valid and complete intervention measures, which will ultimately improve the validity of the evaluation analyses 	<ul style="list-style-type: none"> • Final delivery of database to OJJDP
3) Build a database of alcohol-related outcomes (e.g., national surveys of youth; campus liquor law violations; traffic accident data) and relevant covariates across the same time period	<ul style="list-style-type: none"> • The impact will be to consolidate measures of alcohol-related attitudes, behaviors and outcomes and key covariates from multiple sources into a single database that can be linked with the EUDL activities database 	<ul style="list-style-type: none"> • Semi-annual progress reports on database development • Final delivery of database to OJJDP
4) Conduct analyses to determine the relationship of EUDL interventions to youth outcomes both within and across States, while controlling for shifts in the population demographics	<ul style="list-style-type: none"> • The impact will be to increase understanding of what elements of the interventions are most effective and/or least effective at changing attitudes and behaviors of underage youth 	<ul style="list-style-type: none"> • Delivery of analysis tables to OJJDP depicting the results
5) A final report to OJJDP as well as several peer-reviewed publications will serve as a mechanism for dissemination of the findings to the field	<ul style="list-style-type: none"> • The impact will be to share what was learned from this research with policymakers, program planners, and the research community 	<ul style="list-style-type: none"> • Practitioner-friendly interim and final reports • Final report and peer-reviewed articles

2.3 Study Hypotheses

A database of EUDL activities implemented by States coupled with a database of outcomes across the same time period will enable us to generate and test a myriad of hypotheses. We will work closely with OJJDP and other stakeholders to prioritize and develop a final set of hypotheses to be tested. Below we list several example hypotheses to test in this project:

- **Hypothesis 1:** Across the block grant period (1998-present), States with more active and well-rounded coalitions that represent the whole community (e.g., coalitions that meet

regularly, that involve youth, and so on) will have a greater overall impact on reducing underage drinking and associated misconducts than States with less active and less representative coalitions.

- **Hypothesis 2:** States that coupled non-EUDL funds with EUDL funds to support underage drinking prevention activities (i.e., total funds were greater than the total block grant amount given) will be more likely to see impacts on underage drinking outcomes than States that used only EUDL funds to support activities.
- **Hypothesis 3:** Based on earlier EUDL evaluations (see Spera et al., 2011; Wolfson et al., 2011), States implementing more intervention activities (higher dose) across the period (1998-present) will observe greater impacts on underage drinking than those implementing fewer activities (lower dose).
- **Hypothesis 4:** Regarding the effectiveness of environmental strategies, we expect that for a specific target population (e.g., high school students), certain specific strategies will have a greater impact than others. For instance, we hypothesize that media interventions will have a greater impact on high school students given their level of exposure to media (e.g., television, radio, print) than other types of environmental strategies (e.g., active coalitions DUI/DWI checks, covert underage buying, shoulder tap operations etc.).
- **Hypothesis 5:** Our study of the EUDL military discretionary grant suggested that the “mix matters” in terms of certain strategies impacting specific outcomes (see Spera et al., 2011). As a result, we expect States that focused on certain activities (e.g., DUI/DWI enforcement) would have observed certain outcomes (e.g., decrease in car accidents).
- **Hypothesis 6:** We expect that the impact on underage drinking may be greatest when multiple strategies are leveraged at the same time, such as DUI/DWI enforcement paired with intense media messages (including showing the DUI/DWI enforcement on television local news) in the same reporting period or year.
- **Hypothesis 7:** Based on results of our military discretionary evaluation (see Spera et al., 2011), we expect States that focus on educational activities alone (without substantial use of other environmental strategies) will see little impact on underage drinking outcomes.
- **Hypothesis 8:** Given the natural variation in States’ efforts with respect to EUDL, this study will enable testing of the persistence or sustainability of intervention effects. We expect that the effects of certain interventions (e.g., law enforcement of underage drinking laws, increased taxes on alcohol) will persist longer than others.

3 Concluding Remarks

This study is ambitious, and has several potential issues that need to be addressed. Among the issues are:

- **Granularity of data across different data sources:** Many of the grantee activities occur at the “community” level, rather than a larger ZIP code or county level. A challenge is to be able to match the granularity of activities with the granularity of other data in order to have a consolidated and analyzable database.
- **Translating analytical constructs into data requirements:** We may not be able to acquire data that will address all the analytical constructs that we’ve identified in our study proposal. We will note any data limitations in the various dissemination documents to inform readers and other stakeholders of these documents.

Despite these difficulties, we are confident that we can deliver results of lasting value.