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#### ABSTRACT

Raising the legal drinking age nationally was designed to decrease highway deaths, but it has not seemed to have affected the drinking behavior of 18-20 year old college students. In August of 1995, the Louisiana legislature raised the legal minimum drinking age to 21. This provided a unique opportunity to examine the effects of a change in legal status on actual drinking behavior. In this study, college student drinking patterns were examined 6 months prior to the change in status and 6, 18 and 30 months after the change. The goal was to seek validation of the Spillover Effect discussed by H. W. Perkins and A. D. Berkowitz in their 1989 study. Four samples of over 400 students culled from a multi-stage stratified sample provided data for 18-21 year old college students' self-report of drinking behavior each January from 1995 through 1998. (JM)



# The US Dept. of Education's 12th Annual National Meeting on Alcohol, Other Drug, and Violence Prevention in Higher Education

October 16, 1998

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Three Years of the New Minimum Drinking Age Law: The search for the "Spillover Effect"

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### 1998 HEC ABSTRACT

#### Title

Three Years of the New Minimum Drinking Age: The Search for the "Spillover Effect"

#### **Abstract**

Raising the legal drinking age nationally was designed to decrease highway deaths, but has it affected the behavior of 18-20 year old college students? In August of 1995, the Louisiana Legislature raised the legal minimum drinking age to 21 years old. This provided a unique opportunity to examine the effects of a change in legal status on actual drinking behavior. In this study, college student drinking patterns are examined 6 months prior to the change in status, and 6, 18, and 30 months after the change. The goal is to seek validation of the "Spillover Effect" discussed by Perkins and Berkowitz in 1989.

Four samples of over 400 students culled from a multi-stage stratified sample provide the data set for 18-21 year old college students' self-report of drinking behavior each January from 1995 through 1998. The CORE Survey was administrated to all students and subjected Kruskal-Wallis ANOVA.

#### **Biographical Sketch**

Dr. Riley Venable is an Adjunct Instructor for the University of Phoenix-Louisiana Campus and a Research Consultant with the University of New Orleans Counseling Services. He has over 9 years experience in AOD Prevention and Treatment.

Dr. Donald Strano is the Manager of Clinical Services and Training at the University of New Orleans Counseling Services. He has over 15 years experience in Higher Education AOD Prevention.

Dr. Zarus Watson is an Assistant Professor of Counselor Education at the University of New Orleans. His research interests include AOD and Violence prevention in minority populations.

## Learning Objectives

- 1. Verbalize understanding of sampling techniques that approach random sampling.
- 2. Verbalize understanding the concept of the "Spillover Effect" as it relates to college student drinking.
- 3. Be able to participate in a discussion of the effectiveness of the minimum legal drinking age.

#### References

Perkins, H. W. & Berkowitz, A. D. (1989). Stability and Contradiction in College Students' Drinking Following a Drinking-Age Change. <u>Journal of Alcohol and Drug Education</u>, 35 (1), 60-77.



- Venable, R. H. (1996). Changes in the Louisiana drinking age law: A view from the front lines. Prevention Pipeline, 9 (2), 9.
- Venable, R. H., Strano, D. A., and Watson, Z.E.P. (1997). <u>Does legislation change behavior?</u>
  The effects of increasing the legal drinking age on a college student population. Paper presented at the National Meeting on Alcohol, Other Drugs and Violence Prevention in Higher Education, San Antonio, TX, 09/97.

# **Previous Presentations on Similar Topics**

- 1998 LA Association for Multi-Cultural Counseling & Development Annual Meeting
- 1997 National Meeting on Alcohol, Other Drugs, and Violence Prevention in Higher Education.
- 1997 Louisiana Counseling Association Annual Meeting
- 1996 Louisiana Counseling Association Annual Meeting



# The US Dept. of Education's 12<sup>th</sup> Annual National Meeting on Alcohol, Other Drug, and Violence Prevention in Higher Education

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# Three Years of the New Minimum Drinking Age Law: The search for the "Spillover Effect"

#### I. Introduction

No drug is more frequently used by the American population than alcohol (Winick, 1992). Approximately two-thirds of the general population drink at least once per year (Johnston, O'Malley, & Bachman, 1993), with about 17% meeting the criteria for a diagnosis of alcohol abuse or dependence (Kessler, 1994).

College students are not immune to the American patterns of alcohol use and misuse. In fact, use by underage American college students is near pandemic (Presley, 1996). This is not a new phenomenon, having been the case for almost 200 years (Gehring & Geraci, 1989). The most recent data suggests that college students are more likely to drink than the general population (90.5% versus 65%) (Johnston, O'Malley, & Bachman, 1993) and are more likely to be heavy drinkers (42% versus 17%) (Wechsler & Isaac, 1991).

Through the years a number of interventions have been proposed and instituted to control the drinking behavior of young adults (including college students). These have ranged from lowering the drinking age (essentially decriminalizing drinking) to imposing martial law on college campus (Gehring & Geraci, 1989). What follows is one effect of an intervention by the Louisiana legislature to decrease drinking by 18-21 year olds.



Louisiana raised the minimum legal age for alcohol consumption (with limited exceptions) to 21 years of age in August of 1995. This change was driven primarily to continue the delivery of federal highway funds to Louisiana state government.

This presentation will discuss the effect of this change on the alcohol use of one sub-population subjected to a change in legal status. It is hoped that this will facilitate discussion of the effectiveness of legislation as a strategy for behavioral change.

#### II. Key Terms

<u>Drink</u> - One serving of 0.5 ounces of pure ethanol. This corresponds to one 10 oz. serving of beer, 4 ounces of wine, or 1.5 oz. of distilled spirits.

<u>Binge Drinking</u> - The consumption of five or more drinks in one setting. If consumed in under two hours, this is enough alcohol to raise the blood alcohol above the level of legal intoxication in Louisiana for an average-sized adult.

<u>Cohorts</u> - Representative samples made up of contemporaries. For this study, cohort groups were used instead of following the same sample for three years.

<u>Representative Sampling</u> - One of several statistical techniques to approximate the actual measurement of an entire population of individuals by measuring a carefully selected, small group of that population.

<u>Significant Difference</u> - a difference between samples that is larger than the difference that could be expected by chance.

#### III. Design

A representative sample of 18-20 year old students at an urban, public university was surveyed as to their drinking habits in January, 1995; January, 1996; and January, 1997. These dates correspond to 6 months prior to, 6 months after, and 18 months after the change in the legal drinking age.

At each point, students were surveyed on their average number of drinks per week and the number of binge drinking episodes over the last two weeks.

#### IV. Results

### A. Comparison of cohorts

Average number of drinks per week
 Green: Of legal drinking age at time of survey
 Yellow: Below drinking age for 6 months prior to survey



Red: Below legal drinking age for 18 months prior to survey

No significant differences were found among groups

2. Frequency of binge drinking

Green: Of legal drinking age at time of survey

Yellow: Below legal drinking age for 6 months prior to survey Red: Below legal drinking age for 18 months prior to survey

No significant differences were found among groups

#### B. Comparison of 18 year olds

1. Average number of drinks per week

Green: Of legal drinking age at time of survey

Yellow: Of legal age for 6 months\*, below legal age 6 months prior to survey

Red: Never of legal drinking age

\* Maximum time of legal drinking age

No significant differences were found among groups

2. Frequency of binge drinking - no significant difference among groups

Green: Of legal drinking age at time of survey

Yellow: Of legal age for 6 months\*, below legal age 6 months prior to survey

Red: Never of legal drinking age

\* Maximum time of legal drinking age

No significant differences were found among groups

#### V. Discussion Questions

- A. Is the criminalization of a behavior the best way to decrease the likelihood of that behavior?
- B. Can you think of other strategies that could be successful in decreasing underage drinking?



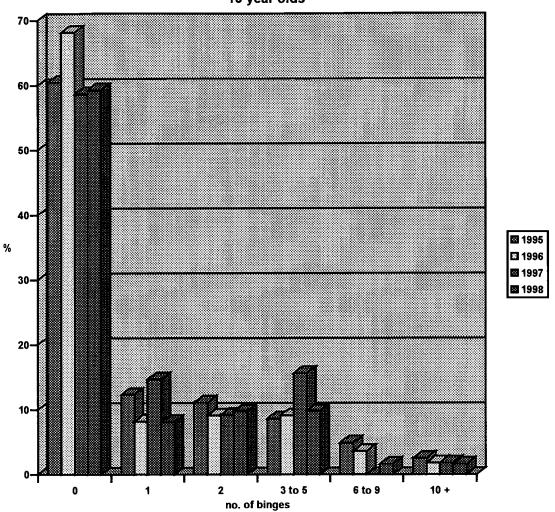
C. What do you believe the legal minimum drinking age should be?

#### VI. References

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## Binges in last 2 weeks 18 year olds



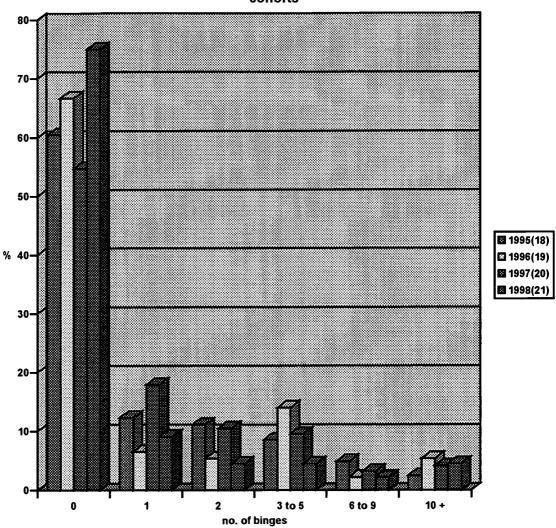
# Kruskal-Wallis 1-Way ANOVA

Year	Mean Rank	Cases
1995	221.44	81
1996	206.41	110
1997	223.03	109
1998	199.18	<u>122</u>
		422 Total

Cases Chi-Square Significance 422 4.080 .253



# Binges in last 2 weeks cohorts



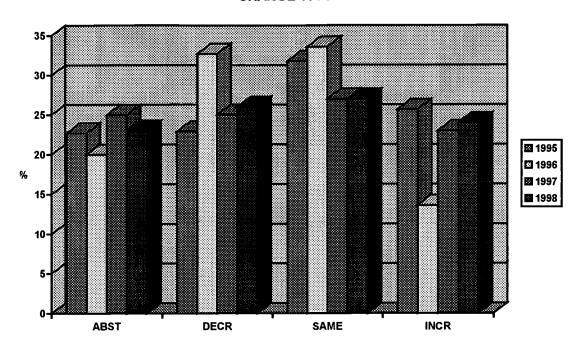
# Kruskal-Wallis 1-Way ANOVA

Age	Mean Rank	Cases	
18	159.97	81	
19	159.08	93	
20	167.23	95	
21	133.39	<u>45</u>	
		314	Total

Cases	Chi-Square	Significance
314	5.797	.122



## **CHANGE 18YO**



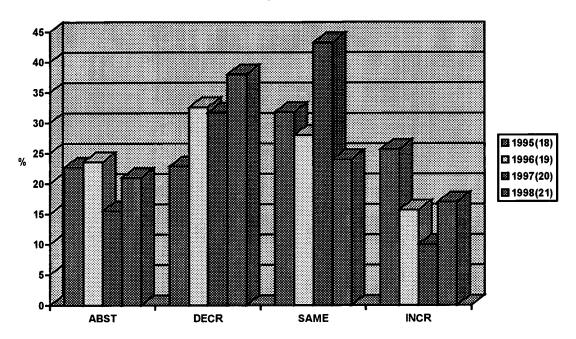
# Kruskal-Wallis 1-Way ANOVA

Year	Mean Rank	Cases	
1995	217.72	81	
1996	195.57	110	
1997	216.89	109	
1998	216.91	<u>122</u>	
		422	Total

Cases	Chi-Square	Significance
422	2.717	.437



## **Change Cohorts**



# Kruskal-Wallis 1-Way ANOVA

Age	Mean Rank	Cases	
18	166.10	81	
19	150.17	93	
20	157.50	95	
21	157.17	<u>45</u>	
		314	Total

Cases	Chi-Square	Significance
314	1.439	.696

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