

Indiana University Bloomington
IUScholarWorks

Dr. Ruth C(lifford) Engs - Presentations, Publications & Research Data Collection.

This collection is found at IUScholarWorks: <http://hdl.handle.net/2022/16829>

The Collection

This document is part of a collection that serves two purposes. First, it is a digital archive for a sampling of unpublished documents, presentations, questionnaires and limited publications resulting from over forty years of research. Second, it is a public archive for data on college student drinking patterns on the national and international level collected for over 20 years. Research topics by Dr. Engs have included the exploration of hypotheses concerning the determinants of behaviors such as student drinking patterns; models that have examine the etiology of cycles of prohibition and temperance movements, origins of western European drinking cultures (attitudes and behaviors concerning alcohol) from antiquity, eugenics, Progressive Era, and other social reform movements with moral overtones-Clean Living Movements; biographies of health and social reformers including Upton Sinclair; and oral histories of elderly monks.

Citation for this item

To obtain the citation format and information for this document go to:

<http://hdl.handle.net/2022/17282>

Indiana University Archives

Many original paper manuscripts and other materials for Dr. Engs can be found in the IUArchives. The finders list for this collection is at:

http://webapp1.dlib.indiana.edu/findingaids/view?doc.view=entire_text&docId=InU-Ar-VAC0859

COLLEGE STUDENT DRINKING PATTERNS OVER TIME: 1974-1983

Ruth C. Engs, Indiana, University, Bloomington, In 47401

Paper presented: ADPA Higher Education Conference, March 1, 1983, Chicago. IL

Digitalized for IUScholarWorks Jan. 2014. Retrieved from IUScholarWorks repository:

<http://hdl.handle.net/2022/17282>

ABSTRACT

The purpose of this study was to determine if there had been changes in drinking patterns and problems related to alcohol over time in relationship to demographic variables which have been shown to have an association with alcohol use and abuse. A survey of 6115 college students from every contiguous state was conducted during the 1982-3 academic year. A sub-sample of the same, or equivalent colleges, found in Engs' 1974 study was compared. For the study the 1981 version of the Student Alcohol Questionnaire was used. The results revealed that virtually the same percentage of students drinking (79.4% and 78.6%) and a significant ($p < .05$) increase in heavy drinking (11.6% and 16.9%) was found. Compared to the 1974 sample, a significant increase in problems related to drinking of such as "hangovers," "drinking while driving," and "missing class because of hangovers" was found ($p < .05$). There was no significant increase among men, blacks (of either sex), or class levels in consuming alcohol at least once a year, heavy drinking (consuming 6 or more drinks at any one sitting) or problems related to drinking between the two time periods. However, there was a significant increase among women, and in particular white women, for heavy drinking and problems related to drinking. It is recommended that more educational efforts be aimed at women concerning alcohol.

INTRODUCTION

Over the past decade, changes in the structure of American society have been apparent. Durkheim (1951) postulates that changes in social structure lead to changes in beliefs, norms and behaviors. This can be seen, for example, in the changing roles of women, in alternative life styles, and in intergroup relations (Miller and Garrison, 1982; DeLamater, 1981; Porter and Washington, 1979). While it is reasonable to assume that changes may also be occurring in drinking among college students, there is a lack of agreement regarding the nature and extent of any such changes (Girdana and Girdano, 1976; Blane and Hewitt, 1977; Engs, 1977, 1978; Hanson, 1977; Banks and Smith; Reiskein and Wechsler, 1981; Wechsler and McFadden, 1979).

Blane and Hewitt (1977) examined the incidence of drinking among collegians over time and

found an increase in the mean percentage of those who had ever drunk. While some recent studies have supported this finding including Banks and Smith (1980), Girdano and Girdano (1976), Kopplin *et al.* (1977), other including Engs (1977, 1978), Hanson (1977), Tooley and Dezelsky (1978), Lavin (1980) have not. Information about potential changes on a national basis in drinking patterns and problems would be useful not only for theoretical development, but also as a foundation for possible social policy and campus education and prevention programs.

METHODS

Sample

In the fall semester of the 1982-3 academic year, a total of 112 four year colleges and universities from around the nation were asked to participate in the study. These included all the colleges sampled by Engs in 1974 (Engs, 1977, 1978). Institutions were selected to represent the proportions of students attending four year institutions of higher learning based on the *Yearbook of Higher Education* (1978) in terms of public or private (religiously affiliated as well as non-affiliated) racial mixtures, enrollments over and under 10,000, location in various community sizes (under 100,000, 100-500 thousand, over 500 thousand) and from all 48 contiguous states. Engs requested instructors of personal, or basic, health and physical activity classes to participate in the study. David J. Hanson, SUNY, Potsdam, NY requested sociology classes to participate in the study.

Departments that agreed to partake in the study were asked to randomly distribute up to a maximum of 75 questionnaires in survey-type classes with a high probability of having students from every major and class level. From this total number of colleges, 81 or 72.3% agreed to participate and returned questionnaires. From the total number of 219 departments contacted, 107 (63 from health, physical education and recreation departments and 44 from sociology) or 48.8% returned completed questionnaires. At 26 colleges respondents from both sociology and HPER departments were obtained.

The total sample included six institutions that participated in the 1974 study (Engs, 1977, 1978). Seven additional colleges in the present study were matched with the seven remaining institutions, of the earlier study, for comparisons between the two time periods. These colleges were matched in terms of enrollment size, geographic region, community size, racial composition, and whether they were private or state supported.

The Instrument

The instrument combined the *Student Alcohol Questionnaire* (Engs, 1975; Engs, 1977, 1978) and the *Alcohol Attitude Questionnaire* (Hanson, 1977). This new 1981 instrument called *The Student Alcohol Questionnaire and the Alcohol Attitude Questionnaire* contained eight demographic items, six questions for determining quantity-frequency level, 17 statements or problems resulting from drinking, 36 items concerning alcohol knowledge and 11 questions regarding norms and attitudes. Instructions of the pre-coded instrument requested anonymous responses, explained the purpose of the study, and indicated its voluntary nature as outlined by the Indiana University Human Subjects Committee Guidelines.

Calculations

The quantity-frequency level (Q-F) was used to determine an individual's drinking classification. Individuals were divided into one of six categories ranging from Abstainer to Heavy drinker as described in detail by Engs (1977, 1978).¹ For other calculations including Q-F levels for various demographic variables and percentage of drinking problems, chi-square analysis using the Statistic Package for the Social Science program was used.

RESULTS

Demographic

The 1974 sample (Engs, 1977, 1978) and 1982 sub-sample were comprised of 1128 and 810 students respectively. The demographic characteristics were men, 45.4% and 39.9%; women, 54.6 and 60.1%; whites, 82.1 and 76.3; blacks, 19.9% and 23.7%; first year, 35.3 and 29.5; second year, 23.3 and 23.0; third year, 22.9 and 28.1% and fourth year, 18.5 and 19.4 respectively. There were about 5 percent more women and blacks and 5% fewer first year students in the 1982 sub-sample compared to the 1974 sample, a fact which could have possibly affected the results.

On the whole the percentages for these variables were similar to the percentages found in *Yearbook of Higher Education* for institutions and students in the United States. The major exception was an over representation of female students in the sample compared to female students in the country as a whole (47%).

Comparison of the 1974 and 1982 Drinking Patterns

General: Analysis of the 1974 and 1982-3 sub-samples indicated that there was a significant difference in the drinking patterns between the two time periods ($X^2 = 13.4$, $df = 5$, $p < .05$). There was an increase in the percentage of students who were Heavy Drinkers and a decrease in those who said they drank less than once a year or not at all (Table I). Analysis of the two time periods indicated that a significantly higher percentage of students in 1982 experienced

¹ The Q-F for each subject was calculated from the beverage (beer, wine or distilled spirits) most frequently used and the amount consumed on a typical occasion. This placed the drinker into the category of ABSTAINER, drinking less than once a year or not at all; INFREQUENT DRINKER, drinking more than once a year but less than once a month; LIGHT DRINKER, drinking at least once a month but not more than 1 to 3 drinks at any one sitting; MODERATE DRINKER, drinking at least once a month with no more than 3 to 4 drinks, or at least once a week with no more than 1 to 2 drinks, at any one sitting; HEAVIER DRINKER, drinking 3 to 4 drinks at least once a week or drinking 5 or more drinks at least once a month; or HEAVY DRINKER, drinking six or more at any one sitting more than once a week.

"hangovers" ($X^2 = 24.3$, $df = 4$, $p < .001$), "driving while drinking" ($X^2 = 11.0$, $df = 4$, $p < .05$) compared to the 1974 sample (Table II).

Sex: Among men there was no significant difference in drinking patterns between the 1974 and the 1982 time period in this sample (Table I). Likewise there was no significant change in any of the problems related to drinking among men. On the other hand, among women there was a significant change in the Q-F drinking patterns ($X^2 = 22.6$, $df = 5$, $p < .001$). though the same percentage were drinking during both time periods (74%) there was almost a tripling in the percentage reporting heavy drinking (4.4% vs 11.5%) between the two time periods.

Moreover, there was a significant increase ($p < .05$) in several drinking related problems including "hangovers" (48.3% vs 58.2%), "vomiting" (32.9% vs 35.6%), "drinking and driving" (18.2% vs 28.1%) and "missing class because of hangovers" (12.5% vs 17.1%). In contrast there was a significant decrease ($p < .05$) in "coming to class after drinking" (8.2% vs 4.5%), "problems with school administration" (1.4% vs 0.2% and "causing damage to school property" (3.0% vs 1.8%) because of drinking.

Race: Among whites a significant ($X^2 = 21.9$, $df = 5$, $p < .001$) increase between 1974 and 1982 both in drinking (84.0% and 86.6%) and heavy drinking (12.8% and 21.4%) was found (see Table I). A significant ($p < .05$) higher percentage of the 1982 sub-sample indicated that they had experienced problems with "hangovers" (60.4% vs 68.0%), "vomiting" (40.1% vs 42.1%) "drinking while driving" (33.8% vs 42.7%), "missing class because of hangovers" (18.0% vs 22.7%) during the previous year. Among blacks there was no significant difference in drinking patterns between the samples of two time periods (Table I) or for problems related to drinking. Moreover there was a significant decrease among blacks ($p < .05$) in "thinking I have problems with drinking" (11.4% vs 1.4%), "getting into problems with the law" (6.0% vs 0%), "cutting class because of drinking" (10.9% vs 2.1%), and "coming to class after drinking" (15.8% vs 2.1%).

Further analysis shows that among white men and, both black men and women, that there was *no* significant difference in the drinking patterns between the two time periods. For white women, however, there was a significant increase ($p < .001$) both in drinking at least once a year (82.3% vs 85.9%) and heavy drinking (4.8% vs 14.4%). Furthermore, there was *no* significant change in any of the problems related to drinking for white women and black women and among black men there was a significant decrease in "driving after drinking too much" and "drinking while driving" ($p < .05$). However, for the white women there was a significant increase in the same problems related to drinking as found for women as a whole ($p < .05$).

Class Year: There was no significant change in the drinking patterns of any of the classes between the 1974 and 1982 sub-samples (Table I). Though for first year students, the chi-square results were approaching significance ($p = .052$) as the results show both an increase in drinking and heavy drinking. The first year students had a significant ($p < .05$) decrease over time in the percentage of students "missing class because of hangovers" (14.4% vs 7.4%). Second year students reported a significant ($p < .05$) increase in "hangovers" (56.6% vs 63.6%), third year students had a significant increase ($p < .05$) in "driving a car after drinking" (49.5% vs 56.1%) and a significant decrease ($p < .05$) in "driving a car after having too much to drink" (33.5% vs

31.4%), and fourth year students had a significant increase ($p < .05$) in missing class because of hangovers" (15.7% vs 29.8%) and damage to university property (6.7% vs. 9.7%).

DISCUSSION

There was a slight increase in heavy drinking in the 1982-3 sub-sample of the same or equivalent schools when they were compared to the 1974 sample. However, this change is believed to be largely due to an increase in heavy drinking on the part of white females. There was an increase in three drinking related behaviors, namely, "hangovers," missing class because of hangovers," and "drinking while driving." Perhaps the increase in drinking while driving might have resulted from the fact that many states have recently increased their drinking age thus causing drinking in automobiles to be considered a "safe" place to drink away from school or other authorities. The increase in hangovers and missing class because of hangovers might also be the result of increased heavy drinking and possibly rapid drinking so as to destroy the evidence. On the whole, few increases in drinking related problems over time were found which supports some other recent reports (Engs, 1977, 1978; Hanson, 1977).

It was interesting to note that between the 1974 and 1982 sub-samples there was no increase in drinking, heavy drinking or problems related to drinking among blacks or black men or women. There was an increase, however, in heavy drinking and several drinking related problems among women and in particular white women. This supports most other recent research reports which suggest that during the past 10 years there has been an increase in drinking, heavy drinking and problems resulting from drinking among female students. Perhaps this increase in female heavy drinking and problems related to drinking is reflective of the fact that women feel it is more socially acceptable to drink or feeling more free to admit that they have been drinking heavy because of decreased social stigma about women being drunk.

Drinking appears to have increased from one grade level to the next which supports some older studies (Rogers, 1970; Hanson, 1972; Straus and Bacon, 1953) and refutes some recent ones (Engs, 1977, 1978; Glassco, 1975; Hockhauser, 1977; Engs, 1982; Hanson, 1974). However, heavy drinking appears to have decreased among this sample from one class level to the next. Most of the problems related to drinking also increased from one grade level to the next. There was no appreciable difference between the samples of the 1974 and 1982 time periods within each grade level concerning drinking problems or patterns.

CONCLUSIONS AND RECOMMENDATIONS

Although heavy drinking and problems related to drinking is primarily a male phenomenon there was an increase in heavy drinking and problems related to drinking between the two time periods among white women in this sample. The changes in drinking patterns as suggested by Durkheim's theory may be reflective of the general changes in the social fabric and the role of women in our society. However, there does not appear to be a dramatic increase in drinking.

It is recommended that individuals involved with alcohol education and policy planning for university students be aware that social changes can also change the patterns and problems associated with alcohol use and abuse in different demographic groups. Surveys of college student drinking patterns and problems need to be carried out on individual campuses before alcohol awareness programming is implemented to determine the local patterns and problems. Possible changes in drinking related problems need to be observed over time so that campus alcohol policy and programs can be augmented based on these behavior changes.

More investigations of a variety of behaviors exhibited by university students as it reflects social change needs to be carried out so that possible increases in certain types of behaviors common among university students can be predicted such as sexually transmitted diseases, stress related illnesses, drug abuse, suicide, rapes, depression, student pranks, riots, etc.

Table I. Comparison of 1974 and 1982 Data in Relationship to Sex, Race, College Class, and Total Group.

| | N | Abstain | Infrequently | Light | Moderate | Heavier | Heavy |
|--------------------|------|---------|--------------|-------|----------|---------|-------|
| SEX | | | | | | | |
| <i>Male</i> | | | | | | | |
| 1974 | 508 | 16.5 | 7.1 | 9.1 | 20.7 | 26.4 | 20.3 |
| 1982 | 322 | 18.3 | 7.8 | 7.1 | 17.1 | 24.8 | 24.8 |
| <i>Females*</i> | | | | | | | |
| 1974 | 611 | 23.9 | 13.7 | 13.9 | 26.5 | 17.5 | 4.4 |
| 1982 | 486 | 23.5 | 10.7 | 12.8 | 22.4 | 19.1 | 11.5 |
| RACE | | | | | | | |
| <i>White*</i> | | | | | | | |
| 1974 | 888 | 16.0 | 11.0 | 11.6 | 24.5 | 24.0 | 12.8 |
| 1982 | 597 | 13.4 | 8.5 | 9.9 | 22.1 | 24.6 | 21.4 |
| <i>Black</i> | | | | | | | |
| 1974 | 193 | 39.9 | 9.3 | 13.5 | 21.2 | 11.4 | 4.7 |
| 1982 | 184 | 45.7 | 14.1 | 12.5 | 15.2 | 8.7 | 3.8 |
| Class Year | | | | | | | |
| <i>First Year</i> | | | | | | | |
| 1974 | 380 | 20.8 | 11.8 | 10.5 | 23.7 | 21.1 | 12.1 |
| 1982 | 236 | 27.1 | 10.2 | 10.6 | 18.6 | 15.3 | 18.2 |
| <i>Second Year</i> | | | | | | | |
| 1974 | 251 | 25.1 | 9.6 | 12.7 | 21.5 | 18.7 | 12.4 |
| 1982 | 184 | 21.7 | 10.3 | 8.2 | 20.1 | 22.3 | 17.4 |
| <i>Third Year</i> | | | | | | | |
| 1974 | 246 | 19.1 | 10.6 | 12.2 | 26.4 | 20.7 | 11.0 |
| 1982 | 225 | 19.6 | 8.9 | 12.0 | 21.3 | 22.7 | 15.6 |
| <i>Fourth Year</i> | | | | | | | |
| 1974 | 199 | 15.6 | 10.6 | 13.1 | 20.6 | 28.1 | 12.1 |
| 1982 | 155 | 16.1 | 7.1 | 10.3 | 21.3 | 27.7 | 17.4 |
| TOTAL | | | | | | | |
| 1974 | 1126 | 20.6 | 10.7 | 11.8 | 23.8 | 21.5 | 11.6 |
| 1982 | 810 | 21.4 | 9.5 | 10.5 | 20.4 | 21.4 | 16.9 |

*p < .05

Table II. Percent of Students Who Drink at Least Once a Year Reporting Alcohol Related Problems Occurring at Least Once During Past Year

| Behavior | Year | |
|--|----------------|---------------|
| | 1974 N=1128 | 1982 N=810 |
| Hangover | 56.2 | 60.7* |
| Driving After Drinking | 49.4 | 48.1 |
| Driving While Drinking | 30.5 | 35.8+ |
| Nausea And Vomiting | 37.3 | 37.3 |
| Driving After Knowing Drunk Too Much | 29.9 | 30.9 |
| Missed Class From Hangover | 16.6 | 18.8+ |
| Fight After Drinking | 9.1 | 8.5 |
| Criticized By Date | 9.7 | 9.8 |
| Damaged University Property | 8.8 | 6.8 |
| Know Have Problems With Alcohol | 8.5 | 6.8 |
| Missed Class After Drinking | 10.9 | 8.2 |
| Went to Class After Drinking | 11.1 | 7.6 |
| Received a Lower Grade | 4.1 | 3.6 |
| Had Problems With the Law | 3.5 | 2.0 |
| Trouble With School Administration | 1.8 | 1.1 |
| Arrested For Driving While Intoxicated | 1.8 | 0.5 |
| Lost Job Because of Drinking | 0.6 | 0.4 |

+p.<.05 *p.<.001

REFERENCES

Banks, E. and Smith, M.R. Attitudes and background factors related to alcohol use among college students. *Psychol. Rep.* 46: 571-577, 1980.

Blane, H.T. and Hewitt, L.E. Alcohol and youth; an analysis of the literature, 1960-75. Prepared for the U.S. National Institute on Alcohol Abuse and Alcoholism. (NTIS Rep. No. PB-268-698) Springfield, VA: Nat. Tech. Inf. Serv., 1977.

Cooper, M.E. Sex roles and incoming college student drinking behavior. *J. Coll. Stud. Pers.* 22: 408-412, 1981.

- DeLamater, J. The social control of sexuality. *Ann. Rev. Sociol.* 7: 263-290, 1981.
- Durkheim, E. *Le Suicide*. Trans. by Spaulding, J. and Simpson, G. New York: Free Press, 1951.
- Engs, R.C. Drinking patterns and drinking problems of college students. *J. Stud. Alcohol* 38: 2144-2156, 1977.
- Engs, R.C. A national study of drinking patterns among university students. 32nd International Congress on Alcoholism and Drug Dependence, Warsaw, 3-8 September, 1978. <http://hdl.handle.net/2022/17154>
- Engs, R.C. Drinking problems and attitudes toward alcoholism of Australian human-service students. *J. Stud. Alcohol* 43: 517-531, 1982.
- Engs, R. C. and J. D. Hanson. Drinking problems and patterns of college students – 1983. ADPA National Conference, Washington, D.C., August 29, 1983. <http://hdl.handle.net/2022/17281>.
- Engs, R.C. and D.J. Hanson. *The Student Alcohol Questionnaire and the Alcohol Attitude Questionnaire*. 1981. IUScholarWorks repository: <http://hdl.handle.net/2022/17208>
- Finnell, S.W., Jr. and Jones, J.D. Marijuana, alcohol and academic performance. *J. Drug Educ.* 5: 13-21, 1975.
- Girdano, D.D. and Girdano, D.A. College drug use - a five-year survey. *J. Amer. Coll. Hlth. Assn.* 25: 117-119, 1976.
- Glassco, K. Drinking habits of seniors in a southern university. *J. Alc. Drug Educ.* 21: 25-29, 1975.
- Hanson, D.J. Drinking attitudes and behaviors among college students. *J. Alc. Drug educ.* 19: 6-14, 1974.
- Hanson, D.J. Trends in drinking attitudes and behaviors among college students. *J. Alc. Drug Educ.* 22: 17-22, 1977.
- Hill, F.E. and Bugen, L.A. A survey of drinking behavior among college students. *J. Coll. Stud. Pers.* 20: 236-243, 1979.
- Hockhauser, M. Alcohol and marijuana consumption among undergraduate polydrug users. *Am. J. Drug Alc. Abuse* 4: 65-76, 1977.
- Hope, E.H. A study of some students' opinions and knowledge of smoking and drinking. *J. Amer. Coll. Hlth. assn.* 20: 219-227, 1972.
- Jessor, R., Carman, R.S. and Grossman, P.H. Expectations of need satisfaction and drinking patterns of college students. *J. Stud. Alcohol* 29: 101-116, 1968.
- Kaplan, M.S. Patterns of alcoholic beverage use among college students. *J. Alc. Drug Educ.* 24: 26-40, 1979.

Kopplin, D.A., Greenfield, T.K. and Wong, H.Z. Changing patterns of substance use on campus: A four-year follow-up study. *Int. J. Addict.* 12: 73-94, 1977.

Kuder, J.M. and Madson, D.L. College student use of alcoholic beverages. *J. Coll. Stud. Pers.* 17: 142-144, 1976.

Lavin, T.J., III. the alcohol problem - more of the same? *J. Amer. Coll. Hlth. Assn.* 29: 96-99, 1980.

Maddox, G.L. and Williams, J.R. Drinking behavior of Negro collegians. *Q. J. Stud. Alcohol* 29: 117-129, 1968.

Miller, J. and Garrison, H. Sex roles: The division of labor at home and in the workplace. *Ann. Rev. Sociol.* 8: 237-262, 1982.

Milman, D.H. and Su, W.H. Patterns of drug use among university students; Heavy use of marihuana and alcohol by undergraduates. *J. Amer. Coll. Hlth. assn.* 21: 181-187, 1973.

Orford, J., Waller, S. and Petc, J. Drinking behavior and attitudes and their correlates among university students in England. I. Principal components in the drinking domain. II. Personality and social influence. III. Sex differences, *Q.J. Stud. Alcohol* 35: 1316-1374, 1974.

Penn, J.R. College student life-style and frequency of alcohol usage. *J. Amer Coll. Hlth. Assn.* 22: 220-222, 1974.

Porter, J.R. and Washington, R.E. Black identity and self-esteem: A review of studies, 1968-1978. *Ann. Rev. Sociol.* 5: 53-74, 1979.

Reiskin, H. and Wechsler, H. Drinking among college students using a campus mental health center. *J. Stud. Alcohol* 42: 716-724, 1981.

Rogers, E.M. Group influence on student drinking behavior. In Maddox, G. L. (Ed.) *The Domesticated Drug: Drinking among Collegians.* new Haven CT: College and University Press, 1970, pp. 307-320.

Straus, R. and Bacon, S.D. *Drinking in college.* New Haven: Yale Univ. Press, 1953.

Toohey, J.V. and Dezelsky, T.L. A six-year analysis of patterns in non-medical drug use behavior. *J. of Schl. Hlth.* 48: 672-679, 1978.

Wechsler, H. and McFadden, M. Sex differences in adolescent alcohol and drug use: A disappearing phenomenon. *J. Stud. Alcohol* 37: 1291-1301, 1976.

Wechsler, H. and McFadden, M. Drinking among college students in New England. *J. Stud. Alcohol* 40: 969-996, 1979.

Wechsler, H. and Rohman, M. Extensive users of alcohol among college students. *J. Stud. Alcohol* 42: 149-155, 1981.