# ACT RESEARCH REPORT



#### ABSTRACT

.

College student concern with social issues and research on this concern continue to grow rapidly. This study assessed the degree of interest which a national sample of 5,623 students in 65 colleges and universities has shown in eight contemporary social issues. Also examined were the relationships of some commonly studied educational variables to this interest. Stepwise multiple regression and discriminant function analyses were used to determine relationships. The frequency and percentage distributions of the responses are also presented and analyzed. The dependent variable was a composite index of four intellectual activities. A wide range of interest was shown among the issues. Ten personal and background variables were examined singly and in aggregate and showed surprisingly weak relationships with the dependent variable.

#### Prepared by the Research and Development Division The American College Testing Program

 $\ensuremath{{}^{\odot}}$  1971 by The American College Testing Program

All rights reserved. Printed in the United States of America

For additional copies write:

Research and Development Division The American College Testing Program P.O. Box 168, Iowa City, Iowa 52240

(Check or money order must accompany request.)

Price: \$1.00

## CORRELATES OF STUDENT INTEREST IN SOCIAL ISSUES

Robert H. Fenske James F. Carmody

Sanford (1966) has pointed out that a primary function of the university is to stimulate student awareness of the great social and political issues of our times. While students need not become "activists," there is a strong need for students during their college years to internalize a wellconsidered social conscience that is marked by devotion to ideals rather than to a social group. How interested are the students on college campuses in social issues?

Simon et al. (1968), after conducting interviews with 1,200 students at 12 colleges and universities, noted that more than 80% were politically inactive. Fewer than 5% were extremely interested in politics. The authors concluded that because seniors were no more interested or committed in either direction than were freshmen, America may be failing to develop political resources despite an increasing need for them. Three years earlier, Nasatir (1965) had studied changes in levels of interest in national and world affairs of 800 University of California (Berkeley) freshman and sophomore men. He found that 86% of the total group indicated a high or moderate degree of interest and that change in level of interest was associated with type of college residence. The greatest overall change, both increase and decrease. was noted among students living in apartments; and the least overall change occurred among students living in fraternities. A recent survey (Bayer et al., 1971) found an increase in concern over the population problem by college freshmen

during the 4-year period from 1967 through 1970. Those investigators also noted a consistently high level of concern for urban and minority group problems.

Feldman and Newcomb (1969) wrote that the studies they summarized which were concerned with social issues "deal with students' orientations to such matters as the relation of capital and labor, the governors and the governed, America and the world. Students report their attitudes and opinions about civil rights, civil liberties, censorship, communism, patriotism, pacifism, and the like [p. 19]." The reader is referred to Feldman and Newcomb's extensive overview and synthesis of research studies pertaining to the topic of student involvement in social issues.

The present approach is in contrast to that taken in most of the recent studies published on the topic of student activism. Typically, student activism is described as overt demonstrations by students in mass rallies, sit-ins, and a variety of peaceful or violent activities. Recent studies (Gales, 1966; Baird, 1970) have shown conclusively that a very small minority of students may be characterized as "activists." The research reported herein deals with the previously neglected academic or intellectual modes of interest and involvement with contemporary social issues; namely, "discussed with a friend," "read an article," "attended a lecture," or "read a book about." Such activities may be reasonably expected to involve a much larger proportion of college students than those engaged in overt demonstrations. The present study not only attempted to assess the degree of interest that a national sample of college students has shown in contemporary social issues but also examined the relationships of some commonly studied biographical variables to this interest. An index of interest in social issues was constructed by weighting the number of positive responses to questions which asked if the sample of students had engaged in the four previously mentioned intellectual or academic activities in regard to eight social issues.

Method

The present study is part of a more comprehensive survey which was undertaken by The American College Testing Program in the spring of 1969 to assess characteristics of students entering college, to measure changes during college, and to relate these changes to characteristics of the college environment. The source of information about entering college students is the Student Profile Section of the regular ACT Battery. The ACT Battery includes the Student Profile Section and the ACT Tests of academic achievement. Thus, the battery provides a comprehensive precollege academic assessment and is administered to approximately one million high school students per year. The Student Profile Section is a short inventory which gives the high school student an opportunity to tell prospective colleges about his aspirations and goals, his expectations about his college experience, and his out-of-class achievements.

The special questionnaire developed for this study and administered to college seniors included items from the Student Profile Section plus a number of others pertaining to the students' evaluation of the college experience; postgraduate plans; and sources as well as degree of satisfaction with their colleges' social, academic, and intellectual climates.'

A total of 8,983 seniors from 65 different colleges and universities participated in the study by giving complete responses to the questionnaire. Of these, 5,623 were merged with each student's 1965 ACT Test Battery record. From the 5,623 merged records, a sample of 896 records was drawn for the regression and discriminant function analyses by selecting every fourth unmarried student who had given a valid answer to the question used as the dependent variable. The indicated activities were distributed as might be logically expected,—discussion with friends and reading newspaper or magazine articles were approximately twice as prevalent as attending a talk or lecture and reading a book. Accordingly, the first two were assigned arbitrary numeric weights of two, and the other activities were assigned weights of four. For each student, totals of the four weighted activities for all of the eight issues were summed to generate a composite index of involvement or interest, with the highest possible score of 96. A frequency distribution of this index approximated a normal distribution.

The 23 independent variables originally employed in the study were divided into two groups. The first group contained 13 variables which were labeled antecedent since they referred to events or characteristics determined prior to college attendance. These variables were ACT Composite; precollege major; level of educational aspiration; most important goal in attending college; planned participation in college student government; planned participation in college debate; activity in which student is most skilled or competent; factors which influenced choice of college (good faculty, high scholastic standards, desirable intellectual atmosphere); extracurricular accomplishments in leadership; high school grade point average; and extracurricular accomplishments in drama and speech. Because these 13 antecedent variables were found to be negligibly related to the dependent variable, they were subsequently eliminated from the analysis.

The second group consisted of 10 variables labeled *concurrent*, since they were drawn from responses to the senior questionnaire. The variables contained in this group are listed and described on the next page.

<sup>&</sup>lt;sup>1</sup>The questionnaire was developed and administered by James M. Richards, Jr., Leonard Baird, and John Holland.

## Independent Variables (Concurrent)

1. Size of college. Slightly over 45% of the students sampled were from universities and colleges with over 10,000 enrollment (1968-69 academic year); 30% were from colleges and universities between 3,000 and 10,000 enrollment; and the remainder were from colleges smaller than 3,000 enrollment.

2. Present academic major. The questionnaire administered to these graduating college seniors asked each respondent to indicate his present academic major. These fields were grouped into the following categories: (a) scientific, engineering, agricultural, and medical fields; (b) counseling, guidance, and social science fields such as sociology; (c) an intermediate category which included the remainder of the fields comprising administrative, political, and persuasive fields as well as arts and humanities.

3. General satisfaction with the college attended. The senior questionnaire asked each respondent how satisfied he was with the college according to a 3-item scale ranging from "Least satisfied" to "Most satisfied."

4. Time spent daily traveling to and from college. Each respondent was asked if he commuted daily to campus and, if so, how much time was spent doing so. The alternatives ranged from "1-10 minutes" to "More than 120 minutes."

5. Employed part- or full time while attending college. Each respondent indicated the extent to which he worked according to a 6-item scale from "Did not work" to "Always worked full time."

6. College grade point average. The senior questionnaire asked each respondent to report his approximate overall grade average so far in college. The 7-item scale offered ranged from "D or lower" to "A to A+."

7. Extracurricular activities during college-Student Government. Each respondent was asked to indicate the extent to which he had participated in each of nine different extracurricular activities according to a 4-item scale ranging from "No participation" to "A great deal of participation."

8. *Extracurricular activities during college*— *Debate*. Similar to number 7 above.

9. Extracurricular achievements during college-Leadership Scale. Each respondent was asked to indicate whether or not each of 10 leadership accomplishments applied to him. Typical items were "Appointed to one or more student offices" and "Served on a student-faculty committee." The scale is simply the number of positive responses.

10. Extracurricular achievements during college-Political Activities. This scale is based on four items such as "Organized a college political group or campaign."

Stepwise regression analysis was used to determine the multiple correlation of the concurrent independent variables, both singly and jointly, with the dependent variable. A standard computing program was used which calculated a sequence of multiple linear regression equations in a stepwise manner. The variable added at each step was the one which made the greatest reduction in the error sum of squares and which had the highest partial correlation with the dependent variable controlling for the variables which had already been added.

For the multiple discriminant function analysis. the student records were divided into three approximately equal-sized groups on the basis of their scores on the scale of interest in social issues: a low-interest group (score 30 and below), a middleinterest group (score 31-48), and a high-interest group (score 49 and above). Scores on the 24 dependent variables were entered into a discriminant function analysis computer program which was a modification of Cooley and Lohnes' (1962). Multiple discriminant function analysis determines the extent and manner in which a number of groups of individuals may be differentiated by a set of dependent variables (24 in the present case) operating simultaneously. The separation of groups may be represented by a number of independent reference axes or "factors." The maximum number of reference axes is equal to the number of groups minus one (Veldman, 1967).

The significance of each of the discriminant functions was tested using a chi-square statistic (Rao, 1952). Overall group discrimination, indicated by Wilks' lambda, was tested with an F-ratio. To establish a conceptual idea of the nature of the separation of high-, middle-, and low-social-interest persons, the correlations of each of the dependent variables with each of the two discriminant functions were inspected. Because of the large number in the sample, the .001 level of significance was selected for all tests of significance in the study. The frequency and the percentage of sampled students who reported participation in the four activities are listed in Table 1 for each of the eight issues.

These students exhibited a wide range of reported involvement among the eight issues for all of the four activities. The average percentage reported for each of the activities is 64.55% who "Discussed," 76.36% who "Read article," 32.56% who "Attended lecture," and 20.84% who "Read book." The first two activities were engaged in approximately twice as often as the last two.

To obtain an indication of the overall level of interest for each particular social problem, the average number of students checking the four activities was obtained for each issue. The percentage this average represented of the total sample was then obtained. These percentages are listed under the heading of "Average interest level" in Table 1 and provide an approximate index of differential interest among the various issues.

The minority group issue accounted for more activities than any other by far. Student protest, population explosion, and urban problems-in that order-were the next three most popular. Pollution, effects of thermonuclear war, and developing countries followed in order: and all were far ahead of farm problems in extent of indicated interest. These activities were cumulative over the entire undergraduate career of the sample students. During the period from fall of 1965 through spring of 1969, civil rights and related problems were the foremost social issues in the attention of most undergraduates. This prominence during the period in question undoubtedly influenced the number of lectures and books available to undergraduates who subsequently responded to the questionnaire.

It appears strange that these students, drawn heavily from the agricultural production areas of the United States, should rank farm problems of farmers in America so much lower in interest than any other. Column 1 shows that a majority of the students had not discussed the issue.

|   |              |             |              | TABLE 1     |                  |             |           |             |                              |
|---|--------------|-------------|--------------|-------------|------------------|-------------|-----------|-------------|------------------------------|
| Numbers and Percentages of Students Indicating Degree of Interest<br>in Each of Eight Social Issues |              |             |              |             |                  |             |           |             |                              |
|   |              |             |              | Activiti    | es               |             |           |             |                              |
| Issues  | Discussed    |             | Read article |             | Attended lecture |             | Read book |             | Average<br>interest<br>level |
|   | N            | % of sample | Ν            | % of sample | N                | % of sample | Ν         | % of sample |                              |
| Student protest   | 7719         | 85.9        | 7906         | 88.0        | 3399             | 37.8        | 1014      | 11.3        | 55.75%                       |
| Farm problems   | 3968         | 44.2        | 5283         | 58.8        | 1492             | 16.6        | 1025      | 11.4        | <b>32.7</b> 5%               |
| Minority groups   | 7447         | 82.9        | 7603         | 84.6        | 4406             | 49.0        | 3533      | 39.3        | 63.97%                       |
| Developing countries  | 4321         | 48.1        | 6153         | 68.5        | 2949             | 32.8        | 2007      | 22.3        | 42.94%                       |
| Pollution   | 5341         | 59.5        | 7439         | 82.8        | 2703             | 30.1        | 1461      | 16.3        | 47.15%                       |
| Urban problems  | <b>568</b> 6 | 63.3        | 7331         | 81.6        | 3059             | 34.1        | 2058      | 22.9        | 50.46%                       |
| Population explosion  | 6524         | 72.6        | 7217         | 80.3        | 3198             | 35.6        | 1911      | 21.3        | 52.46%                       |
| Effects of nuclear war  | 5381         | 59.9        | 5956         | 66.3        | 2200             | 24.5        | 1965      | 21.9        | 43.14%                       |
| Average %   |              | 64.55       |              | 76.36       |                  | 32.56       |           | 20.84       |                              |
| N = 8983  |              |             |              |             |                  |             |           |             |                              |

# 4

The summary table and correlation matrix obtained from the stepwise regression analysis of the concurrent variables are contained in Table 2 and Table 3, respectively. None of the variables studied correlated to any substantial degree with the dependent variable. As might be anticipated, extracurricular activities in the area of politics contributed the greatest amount to the variance in the multiple regression summary contained in Table 2; and inspection of the correlation matrix indicated that this variable also had the highest correlation with the dependent variable. The resultant multiple correlation was .32.

Study of the correlation matrix revealed some interesting relationships. Although extracurricular activities in the area of politics are correlated with extracurricular activities in the area of leadership (r = .357) and the latter variable is correlated with extracurricular activities in student government (r = .508); none of these variables is a very good

predictor of student interest in contemporary social issues. This fact is rather alarming in terms of the responsibility these students seek. Questions may be raised regarding the motives of the students in seeking student political offices or in assisting in the election campaigns of public politicians. Although these data merely hint at such a conclusion, there may well be a distinct type of student activist who is genuinely concerned with and active in social problems, in contrast to a group which rather opportunistically uses social problems as a reason for self-advancement in campus politics and in the accumulation of leadership "credentials."

Academic majors were ranked on an a priori basis into three categories ordered according to their apparent connection with social problems; e.g., social work was among those in the highest category; business majors were classified as intermediate; astronomy was among those in the lowest

| Summary Table of Stepwise Regression |                    |  |               |                         |  |  |  |  |
|--------------------------------------|--------------------|--|---------------|-------------------------|--|--|--|--|
| Step<br>number                       | Variable<br>number | Variable<br>name                                   | Multiple<br>r | F to enter<br>or remove |  |  |  |  |
| ı                                    | 10                 | Extracurricular achievements in political activity | .2595         | 258.7395*               |  |  |  |  |
| 2                                    | 5                  | Worked in college                                  | .2764         | 34.9941*                |  |  |  |  |
| 3                                    | 1                  | Size of college                                    | .2895         | 29.0976*                |  |  |  |  |
| 4                                    | 2                  | College major                                      | .3008         | 26.1510*                |  |  |  |  |
| 5                                    | 3                  | Satisfaction with college                          | .3108         | 24.3470*                |  |  |  |  |
| 6                                    | 9                  | Extracurricular achievements in leadership         | .3182         | 18.5882*                |  |  |  |  |
| 7                                    | 6                  | College grade point average                        | .3198         | 4.0713                  |  |  |  |  |
| 8                                    | 8                  | Extracurricular achievements in debate             | .3209         | 2.7951                  |  |  |  |  |
| 9                                    | 4                  | Distance lived from college                        | .3215         | 1.3235                  |  |  |  |  |
| 10                                   | 7                  | Extracurricular achievements in student government | .3217         | 0.6848                  |  |  |  |  |
| *P < .001                            |                    |  |               |                         |  |  |  |  |

TABLE 2

| TABLE | 3 |
|-------|---|
|-------|---|

| Correlation Ma |
|----------------|
|----------------|

| Variable<br>number <sup>a</sup> | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11 <sup>b</sup> |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|
| 1                               | 1.000 | .137  | 055   | .246  | .030  | .025  | .046  | 066   | .140  | .045  | 072             |
| 2                               |       | 1.000 | .023  | .075  | .001  | 067   | .021  | 015   | .089  | .093  | .093            |
| 3                               | ,     |       | 1.000 | 090   | .064  | 005   | 042   | .012  | 070   | .082  | .112            |
| 4                               |       |       |       | 1.000 | 169   | .045  | .100  | .024  | .204  | .023  | 039             |
| 5                               |       |       |       |       | 1.000 | 043   | .003  | .013  | .000  | .053  | .109            |
| 6                               |       |       |       |       |       | 1,000 | .125  | .035  | .213  | .025  | .040            |
| 7                               |       |       |       |       |       |       | 1.000 | .481  | .508  | .330  | .106            |
| 8                               |       |       |       |       |       |       |       | 1.000 | .073  | .067  | .055            |
| 9                               |       |       |       |       |       |       |       |       | 1.000 | .357  | .139            |
| 10                              |       |       |       |       |       |       |       |       |       | 1.000 | .260            |
| 11 <sup>b</sup>                 |       |       |       |       |       |       |       |       |       |       | 1.000           |

<sup>a</sup>As indicated in Table 2.

<sup>b</sup>The dependent variable (index of interest in social issues).

category. Although it might be expected that a student's major would be a potent determinant of his interest in social issues, it is noteworthy that a negligible correlation was obtained between these two variables.

Plots of the group centroids obtained from the discriminant function analysis showed that the three social interest groups were not separable to any conceptually meaningful extent by the 24 variables employed in the analysis. The first discriminant function accounted for approximately 94% of the total variance. The variables most highly correlated with this function were those measuring political and social service activities and interests. Thus, leadership activities in high school and college correlated with the factors .344 and .359, respectively. The political score scale corre-

lated .612 with the function and .746 with participation in social activities. It further appears that academic-oriented variables such as ACT Composite and high school and college grade point averages are not related to the factor which differentiates the three social interest groups.

In summary, this study revealed surprising differences in levels of interest among eight important social issues and an equally surprising lack of predictability for such interest on the part of 10 commonly studied background and personal variables. The search for determinants of high (or low) interest in social issues is a timely issue, for the current pervasive social concerns of college-age youth are expected to persist and even intensify in the foreseeable future.

- Baird, L. L. Who protests? A study of student activists. In J. Foster, & D. Long (Eds.), Protest: Student activism in America. New York: William Morrow & Co., 1970.
- Bayer, A. E., Astin, A. W., & Boruch, R. F. College students' attitudes toward social issues: 1967-70. *Educational Record*, 1971 (Winter), 52-59.
- Cooley, W. W., & Lohnes, P. R. *Multivariate* procedures for the behavioral sciences. New York: Wiley, 1962.
- Feldman, K. A., & Newcomb, T. M. The impact of college on students. Vol. 1. An analysis of four decades of research. San Francisco: Jossey-Bass, 1969.
- Gales, K. E. A campus revolution. *British Journal* of Sociology, 1966, 17 (March), 1-19.

- Nasatir, D. Collegiate contexts. Paper presented at College Student Personnel Institute, Claremont, Calif., November 1965.
- Rao, G. R. Advanced statistical methods in biometric research. New York: Wiley, 1952.
- Sanford, N. The development of social responsibility through the college experience. In E. J. McGrath (Ed.), *The liberal arts college's responsibility for the individual student.* New York: Teachers College Press, **1966**.
- Simon, W., Carns, D. E., & Gagnon, G. H. Student politics: Continuities in political socialization. Paper presented at American Sociological Association, Boston, August 1968.
- Veldman, D. J. Fortran programming for the behavioral sciences. New York: Holt, Rinehart, & Winston, 1967.

. •

.

#### **ACT Research Reports**

This report is Number 46 in a series published by the Research and Development Division of The American College Testing Program. The first 26 research reports have been deposited with the American Documentation Institute, ADI Auxiliary Publications Project, Photoduplication Service, Library of Congress, Washington, D.C. 20540. Photocopies and 35 mm. microfilms are available at cost from ADI; order by ADI Document number. Advance payment is required. Make checks or money orders payable to: Chief, Photoduplication Service, Library of Congress. Beginning with Research Report No. 27, the reports have been deposited with the National Auxiliary Publications Service of the American Society for Information Science (NAPS), c/o CCM Information Sciences, Inc., 22 West 34th Street, New York, New York 10001. Photocopies and 35 mm. microfilms are available at cost from NAPS. Order by NAPS Document number. Advance payment is required. Printed copies (\$1.00) may be obtained, if available, from the Research and Development Division, The American College Testing Program, P.O. Box 168, Iowa City, Iowa 52240. A check or money order must accompany the request.

The reports since January 1969 in this series are listed below. A complete list of the reports can be obtained by writing to the Research and Development Division, The American College Testing Program, P. O. Box 168, Iowa City, Iowa 52240.

- No. 28 A Description of Graduates of Two-Year Colleges, by L. L. Baird, J. M. Richards, Jr., & L. R. Shevel (NAPS No. 00306; photo, \$3.00; microfilm, \$1.00)
- No. 29 An Empirical Occupational Classification Derived from a Theory of Personality and Intended for Practice and Research, by J. L. Holland, D. R. Whitney, N. S. Cole, & J. M. Richards, Jr. (NAPS No. 00505; photo, \$3.00; microfilm, \$1.00)
- No. 30 Differential Validity in the ACT Tests, by N. S. Cole (NAPS No. 00722; photo, \$3.00; microfilm, \$1.00)
- No. 31 Who Is Talented? An Analysis of Achievement, by C. F. Elton, & L. R. Shevel (NAPS No. 00723; photo, \$3.00; microfilm, \$1.00}
- No. 32 Patterns of Educational Aspiration, by L. L. Baird (NAPS No. 00920; photo, \$3.00; microfilm, \$1.00)
- No. 33 Can Financial Need Analysis Be Simplified? by M. D. Orwig, & P. K. Jones (NAPS No. 01210; photo, \$5.00; microfilm, \$3.00)
- No. 34 Research Strategies in Studying College Impact, by K. A. Feldman (NAPS No. 01211; photo, \$5.00; microfilm, \$2.00)
- No. 35 An Analysis of Spatial Configuration and Its Application to Research in Higher Education, by N. S. Cole, & J. W. L. Cole (NAPS No. 01212; photo, \$5.00; microfilm, \$2.00)
- No. 36 Influence of Financial Need on the Vocational Development of College Students, by A. R. Vander Well (NAPS No. 01440; photo, \$5.20; microfilm, \$2.00)
- No. 37 Practices and Outcomes of Vocational-Technical Education in Technical and Community Colleges, by T. G. Gartland, & J. F. Carmody (NAPS No. 01441; photo, \$6.80; microfilm, \$2.00)
- No. 38 Bayesian Considerations in Educational Information Systems, by M. R. Novick (NAPS No. 01442; photo, \$5.00; microfilm, \$2.00)
- No. 39 Interactive Effects of Achievement Orientation and Teaching Style on Academic Achievement, by G. Domino (NAPS No. 01443; photo, \$5.00; microfilm, \$2.00)
- No. 40 An Analysis of the Structure of Vocational Interests, by N. S. Cole, & G. R. Hanson (NAPS No. 01444; photo, \$5.00; microfilm, \$2.00)
- No. 41 How Do Community College Transfer and Occupational Students Differ? by E. J. Brue, H. B. Engen, & E. J. Maxey (NAPS No. 01445; photo, \$5.50; microfilm, \$2.00)
- No. 42 Applications of Bayesian Methods to the Prediction of Educational Performance, by M. R. Novick, P. H. Jackson, D. T. Thayer, & N. S. Cole (NAPS No. 01544; photo, \$5.00; microfilm, \$2.00)
- No. 43 Toward More Equitable Distribution of College Student Aid Funds: Problems in Assessing Student Financial Need, by M. D. Orwig (NAPS No. 01543; photo, \$5.00; microfilm, \$2.00)
- No. 44 Converting Test Data to Counseling Information, by D. J. Prediger (NAPS No. not available at this time.)
- No. 45 The Accuracy of Self-Report Information Collected on the ACT Test Battery: High School Grades and Items of Nonacademic Achievement, by E. J. Maxey, & V. J. Ormsby (NAPS No. not available at this time.)

. .

-

•



