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ABSTRACT

This study, built upon prior work by E. Pascarella, C. Ethington, and J. Smart (1988), examined the influence of college upon the civic values held by students. Data were obtained from the Cooperative Institutional Research Program, a national longitudinal study of college students. Four sets of variables were used: civic values of students in 1985 and 1989; student individual characteristics; measures of college experience; and organizational characteristics of the institution. The within-school model used in the study showed that students who were more involved in college activities had better civic values than those with less involvement. Another finding was that church-affiliated, or more politically oriented, colleges were more effective in developing student civic values than other types of institutions. Six tables and two appendixes describe the variables and the statistics; summarize data and results for civic value factors, a random coefficient model, an intercept-and slopes-as-outcome model, and a one-way ANOVA model; and show proportion of variance in the final model. (Contains 19 references.) (CH)

COLLEGIATE INFLUENCES ON THE CIVIC VALUES OF STUDENTS

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This paper was presented at the annual meeting of the Association for the Study of Higher Education held in Memphis, Tennessee, October 31 - November 3, 1996. This paper was reviewed by ASHE and was judged to be of high quality and of interest to others concerned with higher education. It has therefore been selected to be included in the ERIC collection of ASHE conference papers.

Collegiate influences on the civic values of students

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College impact researchers have spent a good deal of time studying student attitudes and values and report a variety of findings. Early researchers such as Jacob (1957) found that college had little effect on values. In their massive review of college impact literature, Feldman and Newcomb (1969) concluded that college attendance could influence student value development, but that this influence was neither uniform nor universal. A more recent review concluded that values are affected not only by the college experience *per se*, but indirectly and over the long-term as as well since "college tends to channel graduates into postcollege lives that often reinforce trends shaped by the college experience" (Pascarella & Terenzini, 1991, p. 379). More recent research (Alwin, Cohen, & Newcomb, 1991; Astin, 1993) suggests similar effects to those described by Pascarella and Terenzini.

One area of renewed interest in the higher education community is participation in and attitude toward civic involvement. Although colleges have long attempted to promote civic-mindedness among students (Bowen, 1977; Brubacher & Rudy, 1976), recently there have been strong calls for a return to and strengthening of this mission (Markus, Howard, & King, 1993; Theus, 1988). This area has not been neglected by researchers, but a strong consensus about the role of college in promoting such values has not emerged. In their review of recent research, for example, Pascarella and Terenzini (1991, p. 287) note that despite some inconsistencies in findings related specifically to the development of civic values, the "general weight of evidence supports a tentative conclusion that college attendance does have a modest net effect."

The work of Pascarella, Ethington, and Smart (1988) is illustrative of current quantitative research on student values, and provided results similar to those found in other studies. In an analysis of a national sample of college students, Pascarella, Ethington, and Smart compared the effect of pre-college characteristics, college experiences and employment setting on civic values among four groups of students (white men, black men, white women and black women). Their results suggest that in addition to pre-college characteristics, a student's social involvement in college is a primary mechanism in promoting civic values (with institutional characteristics playing only a small, indirect role).

The purpose of this study is to follow and extend the line of inquiry established by Pascarella, Ethington, and Smart (1988), and examine college's influence on the civic values held by a more recent cohort of students. A number of social and political changes have occurred since the data analyzed by Pascarella, Ethington, and Smart were collected (Dey, Astin, & Korn, 1991) and these changes may well have altered the influence college has on student values. Ideas drawn from Astin (1984), Pascarella (1985), and Weidman (1989), as well as elements from Pascarella, Ethington, and Smart's original model, are used as heuristic guides to selecting variables for a model of the relationship between college attendance and values development.

Astin (1984), for example, proposed a "theory of involvement" to explain the dynamics of how students develop. In essence, "his theory can be stated simply: *Students learn by becoming involved*" (Pascarella and Terenzini, 1991, p.50). He argued that all forms of student involvement, such as academic involvement, student-faculty interaction, athletic involvement, involvement in student government, are related to greater than average changes in entering freshman characteristics. Pascarella (1985) has suggested a general causal model that includes both an institution's organizational characteristics and its general environment. Pascarella proposed that student change is a function of students' background characteristics, interactions with major socializing agents (faculty and peers, etc.) and the quality of students' efforts in learning and developing. Pascarella believed that the organizational features of an institution have an indirect influence on student development, their effects being mediated through the other

effects in the model. Weidman (1989) has proposed a model of undergraduate socialization that incorporates both psychological and social structural influences on student change. In addition to the influential factors suggested by Pascarella, Weidman hypothesized important non-college influences on students, which include parents, peers, or other reference groups.

Hierarchical linear modeling (HLM; Bryk and Raudenbush, 1992) will be employed as an analytical technique given the structure of the data used for this analysis (that is, students nested within institutions). HLM is a technique which has not been widely used in studies of higher education to date, but which takes into account the clustered (or hierarchical) nature of data which abounds in educational settings and allow for the appropriate estimation of population parameters from sample data. The traditional linear models which predominate higher education research ignore these realities and rest imprecisely on the assumption of purely random sampling. HLM analyses have led to many interesting insights into the effects of pre-collegiate schooling (Raudenbush and Willms, 1991), and may well do the same for research on postsecondary education topics. In this study, HLM is used to address the following research questions: (1) Do students who are more involved in college activities have better civic values than those with less involvement, controlling for gender, race/ethnicity, socioeconomic background, major field in college, and prior civic values development? (2) What organizational characteristics of a college are associated with civic values of students? How do differences among colleges in their organizational characteristics influence the civic values of students?

Data and variables

Data for this study were obtained from the Cooperative Institutional Research Program (CIRP)[1], a nationally-representative longitudinal panel study of college students conducted between 1985 and 1989. Data analyzed were taken from surveys completed by students who

[1] As typically configured, the CIRP data set includes both student and school-level data. Therefore, two data sets were generated, student-level and school-level, from the original CIRP data set.

entered college in 1985, as well as data from follow-up surveys, issued in 1989 to the same students. The first survey, conducted in 1985, collected a wide array of student background and biographical information, while the follow-up survey in 1989 focused on their experiences in college. The original data set that has relevant information of students and colleges at both initial and follow-up surveys starts with 27,065 students and 444 colleges. After assigning weights,[2] this study used 16,776 students and 304 colleges. The average (unweighted) school sample size was about 80 students. The non-response weight adjusts the sample so that it represents an unbiased sample of 27,065 drawn from the 300,000+ students who completed the freshman year survey. The stratification cell weight, in combination with the non-response weight, adjusts the sample to that it represents the 1.8 million students who entered college at the time of the freshman survey.

Based on the college impact models and prior studies on student change, this study utilizes four variable sets: (1) civic values of students in 1985 and 1989; (2) student individual characteristics; (3) measures of college experience; (4) organizational characteristics of the institution attended. Student civic value in 1989 serves as an outcome variable, while student responses in 1985 served as an important control variable. This composite measure was constructed with factor analysis. Using 18 life-goals items, Principal Component (PC) rotated to VARIMAX solution identifies a seven-variable civic values factor. Its factor loadings were depicted in Table 1. The reliability of this factor was satisfactory (Cronbach α=.8154). This measure was almost normally distributed.

Student individual characteristics comprise gender, socioeconomic background, and racial/ethnic group. There is no consensus on sex differentials in college impact. Bowen (1977) summarized that "college produces some convergence of interests and attitudes between men and women and thus narrows personality differences between the sexes (p.131)." On the

[2] The CIRP data set has no institutional-level weighting variable given its stratified design. The dataset, however, had a weighting variable at student level of which 90% of the variance was explained by differences between schools (the weighting variable was a product of a gender weight and a stratification cell weight). The former weight was related to a student level, while the latter was associated with an institutional level. Given the goals of the analysis, the stratification cell weight was applied as an institutional weight.

contrary, Astin and Kent (1983) suggested that there is a difference in the development of humanitarian/civic orientation between male and female students.

According to Sedlacek (1987), minority students, especially black students on predominantly-white campuses have continued to have difficulties with self-concept, racism, developing a community, and the other non-cognitive areas. Although Asian Americans cannot be classified into a minority in terms of school achievement, they might be still categorized as minority in terms of civic values development. This is because they are a small group that may have different social values, compared to white students.

Vreeland and Bidwell (1966) analyzed the effects of academic departments on student values and attitudes. They found that social science departments have the most consistent and extensive effects on student values, while natural science fields have the least consistent and extensive effects on student values. To take this difference in effects of major fields into account, major fields was dummy coded (0 = social sciences, 1 = non-social sciences).

The measure of college experiences include academic, social involvement[3], and involvement in student government. In reviewing the college impact models in the theoretical background section, the theorists in this field have a strong belief in the role of student involvement in developing humanitarian/civic values. Pascarella, Ethington, and Smart (1988) found that a student's social involvement[4] in college is a primary mechanism in promoting civic values with institutional characteristics playing only a small, indirect role. Lacy (1978) also concluded that "the patterns of interaction with agents of socialization, faculty and peers, in conjunction with initial student characteristics, affected the nature of student values (p.209)." Therefore, it is expected that several forms of student involvement are positively associated with civic values of students.

Students' prior civic values development is also considered as an independent variable, in order to control for its effects on the subsequent civic values. Generally, since pre-test has the

[3] See Appendix B for factor loadings and reliability
[4] We used a different measure of social involvement from their work. Their construct of social involvement had four items: "president of one or more student organization," "served on a university or departmental committee," "edited a school publication," "held a major part in a play."

largest effect on post-test, we can expect that civic values in 1985 will have the strongest effect on civic values in 1989. All independent variables used in the level-1 model have approximately normal distributions.

The organizational characteristics of institutions continue to influence attitudes and behaviors among social groups. Educational research has shown that students' college experiences are distinct according to the various types of institutions they have chosen to attend. This study will allow the assessment of the impact of variation in academic quality, and institutional control, public or private, institutional affiliation, mean college student-to-student contact, and percent in campus demonstrations on civic values development of college student.

Institutional selectivity, which can be viewed as a measure of academic quality, was computed as a sum of SAT verbal and math scores among entering students. According to Pascarella, Ethington, and Smart (1988), institutional selectivity has a trivial impact on humanitarian/civic values held by students. Some researchers argue that institutional size has a negative effect on students' non-cognitive development, while others point out that a measure of institutional size should not be limited to a quantitative index, because the psychological size students feel could vary depending on institutional climate. However, we employed a quantitative index, the number of undergraduate FTE students for institutional size, because a qualitative measure is not available in the CIRP data set. To see whether or not this argument is sustainable, we included institutional size as an independent variable.

It is reasonable that since church-affiliated colleges are more likely to emphasize ethical goals of the institution, students attended those institutions could more develop their civic values, compared with counterparts from other-affiliated colleges. According to Finney (1974), exposure to political subculture both contributed independently to changes in civil-libertarianism and also served as a channel for the indirect influence of several entering political attitudes on civil-libertarian change. It is expected that students graduated from higher percent in campus protests/demonstrations tend to more develop their civic values, compared with counterparts from lower percent in campus demonstrations. Most researchers agree that peer interaction is one

of the most important influences on student change. All level-2 independent variables used in this analysis have an approximately normal distribution.[5] A brief description of the variables employed in this study is shown in Table 2.

Method

The research questions describe effects at two levels of analysis: (1) student-level effects on civic values within colleges, and (2) school-level effects on between-school differences in the effect of social involvement, and on variation in college mean civic values. The within-school model which we investigate here is as follows:

$$\text{Civic Values in 1989}_{ij} = \beta_{0j} + \beta_{1j}(\text{FEMALE})_{ij} + \beta_{2j}(\text{MINORITY})_{ij} + \beta_{3j}(\text{SES})_{ij} + \beta_{4j}(\text{SCIENCE})_{ij} + \beta_{5j}(\text{LEADER})_{ij} + \beta_{6j}(\text{ACAINV})_{ij} + \beta_{7j}(\text{SOCINV})_{ij} + \beta_{8j}(\text{CV85})_{ij} + r_{ij}$$

where

β_{0j} = Mean civic values of students in college j

β_{1j} = Female civic values differentials, compared with males, in college j

β_{2j} = Minority civic values differentials, compared with Whites, in college j

β_{3j} = The relationship of civic values to socioeconomic status in college j

β_{4j} = Major in science civic values differentials,
compared with major in social science in college j

β_{5j} = Involvement in student government differentials in college j

β_{6j} = The relationship of civic values to academic involvement in college j

β_{7j} = The relationship of civic values to social involvement in college j

[5] The institutional size variable in this study was positively skewed. After I transformed its distribution with a natural logarithm, it almost looks like a normal distribution.

β_{8j} = The relationship of civic values in 1989 to civic values in 1985

In this study, the intercept, β_{0j}, social involvement differentiation, β_{7j} are allowed to vary from college to college, while the effects of other variables are constrained to be equal across colleges. Random variables are centered around the school mean. The other parameters are centered around the grand mean. The β coefficients that vary across schools (β_{0j} and β_{7j}) serve as dependent variables in the Level-2 equations:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(\text{CHURCH}) + \gamma_{02}(\text{M\_STDCON}) + \gamma_{03}(\text{M\_PROTES}) + \gamma_{04}(\text{SELECT}) + \gamma_{05}(\text{SIZE}) + u_{0j}$$

$$\beta_{7j} = \gamma_{70} + \gamma_{71}(\text{CHURCH}) + \gamma_{72}(\text{M\_STDCON}) + \gamma_{73}(\text{M\_PROTES}) + \gamma_{74}(\text{SELECT}) + u_{7j}$$

where

CHURCH = church affiliated; institution;

SELECT = institutional selectivity;

SIZE = institutional size;

M_STDCON = mean school student-to-student contact;

M_PROTES = percent in campus protests/demonstrations

Results

The Intra-class correlation shows that approximately 25.6 percent of the variance in civic values development of students is between colleges. When taking the reliability (.72) of the dependent variable into account, the correlation will be higher to 30.0 percent (for detail, see Appendix A).

Table 4 presents estimates for the student-level equation. All of the nine predictors exert significant effects on the civic values of students, except for gender. Gender has no effect on civic values. In other words, there is no mean difference in civic values between male and female students. This result supports Bowen's (1977) argument that college produces some convergence of interests and attitudes between men and women. Interestingly, the largest effect on civic values is social involvement. This result is consistent with the findings of Pascarella, Ethington, and Smart (1988). Next largest effect is the prior civic values, followed by minority. Civic values is, on average, positively related to minority group membership. As expected, civic values also is, on average, positively associated with academic, and social involvement of students. It is notable that students majored in engineering or physical sciences, on average, are negatively related to civic values, controlling for student characteristics (gender, racial/ethnicity, SES), college involvement, and prior civic values development. This result is also consistent with Vreeland and Bidwell's (1966) contention that social science departments have the most consistent and extensive effects on student values, while natural science fields have the least consistent and extensive effects on student values.

Table 4 also provides estimates of the variances of the random effects and tests of the hypothesis that these variances are null. The estimated variance among the means is $\tau_{00} = .057$, with a χ^2 statistic of 3417.6 (*df*=295). It means that significant differences exist among the college means. The estimated variance of the slopes is $\tau_{11} = .035$, with a χ^2 statistic of 1068.6 (*df*=295), which is statistically significant at .01 level. It shows that the relationship between social involvement and civic values within colleges varies significantly across schools.

Proportion of Variance Explained at Level 1: For the random coefficient model, the estimate of the student-level variance σ^2 is .208. By comparison, the estimated variance in the one-way ANOVA model, a fully unconditional model, was .298. The difference of the two estimates shows that the predictors of civic values development reduced the within-school variance by 30.2 percent.

Based on the results of this within-school model, it can be expected that there exist some factors at school level that are associated with various effects of social involvement across schools. A between-school model and a full-model will provide an insight to this question.

College Mean Civic Values

Table 5 shows that church affiliated colleges is positively related to college mean civic values ($\gamma_{01} = .121$, $t = 3.304$). Civic values was significantly higher in church affiliated colleges, controlling for students' characteristics, prior civic values development, college involvement, mean school student-to-student contact, percent in campus demonstrations, and the number of FTE undergraduate students. It stands to reason that students attended those institutions could more develop their civic values, compared with counterparts from other-affiliated colleges. It may be that church-affiliated colleges are more likely to emphasize ethical goals of the institution, which are closely related to civic values.

Colleges with higher percent in campus protests/demonstrations is also positively associated with college mean civic values ($\gamma_{03} = .067$, $t = 5.182$). Colleges with higher percent in campus protests/demonstrations tend to have higher school mean civic values. This result is consistent with Finney (1974). He argued that exposure to political subculture both contributed independently to changes in civil-libertarianism and also served as a channel for the indirect influence of several entering political attitudes on civil-libertarian change. Therefore, it can be expected that students graduated from higher percent in campus protests/demonstrations tend to more develop their civic values, compared with counterparts from lower percent in campus demonstrations.

Despite that prior studies have considered institutional selectivity and size as important measures that influence student change, these two characteristics of college turn out to be non-significant, at least, in the sample used for this study.

Social involvement differentiation

The effect of mean school student-to-student contact on social involvement differentiation is significant ($\gamma_{72} = .033$, $t = 2.178$). It means that colleges with more interactions among students are more differentiating with regard to social involvement than are colleges with less interactions among students. This seems to be something of a counter-intuitive result, and be also problematic from a theoretical viewpoint. From a college impact perspective, peer interactions should have a important role in student change, in conjunction with student-to-faculty interactions. However, this result suggests that generally being involved in schools with lots of student-to-student interactions heightens the effect on civic values development.

Proportion of variance explained by the final model: Table 6 shows that only relatively small proportions of the variance in average college civic values were explained by the final model. The majority of variation among schools in social involvement differentiation remains unexplained. Considering the reliability of the social involvement differentiation effects ($\lambda = .527$), the substantial differences observed in social involvement differentiation appear to be related to other unspecified factors.

Discussion

In this study, the questions of what organizational characteristics of a college are associated with civic values of students, and how differences among colleges in their organizational characteristics influence the civic values of students, were not answered completely. This study shows that church-affiliated colleges or more politically oriented colleges are more effective in developing civic values of students than other colleges. However, this study does not provide reasonable answers to the equity question. This is partly because, we believe, the model specification of social involvement differentiation was not particularly good. That is, variation among schools in social involvement differentiation remains virtually unexplained. Considering the reliability of the social involvement differentiation effects ($\lambda = .527$), the substantial

differences observed in social involvement differentiation can be viewed as being related to other unspecified factors.

However, consistent with prior studies, this study shows that students who are more involved in college activities have better civic values than students with less-involvement, controlling for gender, race/ethnicity, socioeconomic background, major field in college, and prior civic values development, and that politically oriented characteristics of organization can contribute to civic values held by students. A new finding of this study is that church-affiliated colleges are more effective in developing civic values of students than other colleges. In contrast to prior studies that considered institutional selectivity and size as important measures that influence student change, these two characteristics of college turn out to be non-significant in the sample used for this study. An expansion of the current model to include additional student-level and school-level variables may yield additional insights into the development of civic values among undergraduates.

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Table 1
Factor Loadings and Reliability of Civic Values Factor

Civic Values Item	*Factor Loading*
Participate in community action	.792
Promote racial understanding	.759
Influence social values	.718
Be involved in programs to clean up the environment	.640
Influence political structure	.632
Help others in difficulty	.608
Develop philosophy of life	.581
Cronbach α	.8154

Table 2
Descriptions of Variables used in the Analysis

A. Student-level variables

Civic values in 1989	A composite measure of civic values of undergraduate students, which is assessed in 1989 (*mean*=0; *std*=1.0; Cronbach α=.8154)
Female	A dummy variable indicating student gender (0=male; 1=female)
Minority	A dummy variable indicating student racial/ethnic group (0=white; 1=black, native, Asian Americans, and other minority groups)
Science major	A dummy variable which indicated a student's major in college (0=business, education, health professional, history or political science, humanities, fine arts, social science, other non-technical; 1=agriculture, biological science, engineering, mathematics or statistics, physical science, or other technical)
Socio-econmic status	A composite measure of social-economic status, which comprises parental income, father's education, and mother's education. It is a standardized measure (*mean*=0; *std*=1.0)
Involvement in student government	A dummy variable which indicated if a student had an experience of being elected to student office (0=no; 1=yes)
Academic involvement	A composite measure of student involvement in academic activities, which is standardized (*mean*=0; *std*=1.0; Cronbach α=.4247)
Social involvement	A composite measure of student involvement in social activities, which is standardized (*mean*=0; *std*=1.0; Cronbach α=.6635)
Civic values in 1985	A composite measure of civic values of undergraduate students, which is assessed in 1985 (*mean*=0; *std*=1.0; Cronbach α=.7754)

B. School-level variables

Private	A dummy variable indicating institutional control (0=public; 1=private)
Church affiliated	A dummy variable indicating institutional affiliation (0=federal, state, local, state & local, state-related or independent non-profit; 1=church)
Mean school student-to-student contact	School mean of student-to-student contact, which is a composite measure. It is standardized (*mean*=0; *std*=1.0)
% in campus protests/demonstrations	Percent of in-campus protests and/or demonstration, which is a standardized measure (*mean*=0; *std*=1.0)
Institutional selectivity	Average academic ability of the entering class expressed as a combined SAT verbal and mathematics scores. It is a standardized measure (*mean*=0; *std*=1.0)
No. Of undergraduate FTE students	Institutional size expressed as the number of full time equivalent undergraduate students. It is a standardized measure (*mean*=0; *std*=1.0)

Table 3
Descriptive statistics for the variables in the analysis

	Mean	*Standard deviation*
Student-level variables (n=16,776)		
Civic Values in 1989	.00	1.00
Gender	.59	.49
Racial/ethnicity	.14	.35
Major in college	.24	.43
Socioeconomic background	.22	.41
Involvement in student office	.00	1.00
Academic involvement	.00	1.00
Social involvement	.00	1.00
Civic values in 1985	.00	1.00
School-level variables (n=303)		
Institutional control	.71	.45
Institutional affiliation	.38	.49
Mean school student-to-student contact	.26	.97
Percent in campus protests/demonstration	.34	1.34
Institutional selectivity	.42	1.03
Number of undergraduate FTE students	-.12	.90

Table 4
Random Coefficient Model

Fixed effect	*Coefficient*	*se*	*t* ratio
Average college mean, γ_{00}	-.033	.017	-1.986
Female civic value gap, γ_{10}	-.003	.013	-.265
Minority civic value gap, γ_{20}	.246	.023	1.606
Science major civic value gap, γ_{30}	-.059	.015	-3.918
Involvement in student office, γ_{40}	.072	.016	4.621
SES differentiation, γ_{50}	.021	.007	2.926
Academic involvement, γ_{60}	.053	.006	8.422
Social involvement, γ_{70}	.340	.015	22.675
Civic values in 1985, γ_{70}	.301	.007	44.607

Random effect	*Variance component*	*df*	χ^2	*p* value
College mean, u_{0j}	.057	295	3417.6	.000
Social involvement–Civic value slope, u_{2j}	.035	295	1068.6	.000
Level-1 effect, r_{ij}	.208			

	Correlation among school effects on mean civic value
Social Involvement Differentiation	.093

	Reliability of OLS regression coefficient estimates
Mean civic values	.697
Social involvement differentiation	.535

Note: 'Gap' indicates mean difference.

Table 5
An intercept- and slopes-as-outcome model

Fixed effect	*Coefficient*	*se*	*t* ratio
College mean civic values			
BASE, γ_{00}	-.026	.016	-1.653
CHURCH, γ_{01}	.121	.037	3.304
M_STDCON, γ_{02}	.009	.017	.570
M_PROTES, γ_{03}	.067	.013	5.182
SELECT, γ_{04}	.019	.017	1.144
SIZE, γ_{05}	.019	.019	.995
Social involvement Differentiation			
BASE, γ_{70}	.341	.015	22.224
PRIVATE, γ_{71}	-.027	.032	-.861
M_STDCON, γ_{72}	.033	.015	2.178
M_PROTES, γ_{73}	.014	.011	1.196
SELECT, γ_{74}	.024	.015	1.556

Random Effect	*Variance Component*	*df*	χ^2	*p* value
College mean	.048	290	2130.5	.000
Social Involvement Differentiation	.033	291	967.3	.000
Level-1 effect, r_{ij}	.208			

Table 6
Proportion of Variance explained by Final Model

Model	*Mean Civic Values* $Var(\beta_{0j})$	*Social Involvement* $Var(\beta_{7j})$
Unconditional	.057	.035
Conditional	.048	.033
Proportion of variance explained(%)	15.8	5.7

Appendix A
Results from one-way ANOVA model

Fixed Effect	*Coefficient*	*se*
Average college mean, γ_{00}	-.061	.022

Random Effect	*Variance Component*	*df*	χ^2	*p* value
College mean, u_{0j}	.102	302	4855.7	.000
Level-1 effect, r_{ij}	.298			

Appendix B
Factor loadings and reliability of social involvement factor

Civic values item	*Factor loading*
Discussed racial/ethnic issues	.730
Participated in campus demonstrations	.727
Socialized with someone of different ethnic group	.633
Discussed political/social issues	.500
Cronbach α	.6635

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