
Freshmen Political Orientation: A Quantitative Evaluation of Factors Associated with Student Attitude Change during the First Year

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Introduction

A college education is a major power distinction in the United States. College graduates hold the majority of America's prestigious and high-status career positions. College graduates also make most of America's important decisions regarding social, economic, and legislative issues. Today, more people are attending college than in any past decade. With an increasing number of people enrolling in college, it is crucial to know how college affects students. The public often assumes that college liberalizes students. If this assumption proves true, the liberal bias that students acquire could have lasting effects on society because of the decision-making power college graduates have in American society. Thus, it is important to know college attendees' value systems upon entry into college, the changes those systems undergo, and the factors that most affect those changes.

While politicians, educators, and parents have both positive and negative views about the "liberal" bias in higher education, all feel that students are directly influenced by liberal college environments (e.g., Fish, 2004; Horowitz, 2004). Yet, prior research provides little evidence to confirm that all students actually experience liberalization because of college. Even if we accept the conclusion, however, past research has generally not taken into account students' experiences *before* college. Nor has it sufficiently examined *the process* by which the purported liberalization takes place, nor the characteristics associated with change in student attitudes. Research on college students' views has tended to concentrate more on a particular view in regard to a single issue, rather than on the constellation of views and general political orientation and what they portend.

While I concur with the popular view that college fosters liberal ideals, I do not agree with the assumption that college liberalizes all students. In my research, I focused on attitudinal change during the freshman year in college, as a way of examining the foundation for change that may be established and then built upon or torn down during the remaining college years. I hypothesized that few students enter college as conservative and that the majority of students enter as liberal. I hypothesized that students experience an entrenchment of values during the first year of college—what I call "The Entrenchment Hypothesis." This hypothesis suggests that liberal students comfortably assimilate to collegiate environments and become more liberal because college provides them with positive reinforcement for their

views. In contrast, conservative students must continually defend their views to peers and professors during college, thereby influencing them not only to reject liberalism but also to grow increasingly conservative. Finally, college affects students who enter college with moderate views in one of three ways: 1) they embrace liberalism and experience similar increases in liberal views as do students who arrive at college as liberals; or 2) they reject the liberal environment and become more conservative, like the students who entered college as conservatives; or 3) they fail to change appreciably.

In this study, I investigate whether factors such as gender, race and ethnicity, academic major, perceived family income, and parents' levels of education are associated with college students' initial values, and the extent to which the freshman year in college influences change in students' values. While prior studies have looked at these factors and their associations with students' attitudes, I wanted to test whether such associations are statistically significant. I focused on first-year students because prior research (e.g., Heath, 1968; Loeb and Magee, 1992), indicates that freshmen are particularly prone to influences from their new university environment.

Prior Research

Research on the college experience and students' views has traditionally focused on single topics, as opposed to evaluating more broadly the influence of the college experience on student attitudes (Weakliem, 2002). Weakliem found that most prior research does not assess people's general views regarding their levels of education. For example, research by Pascarella, Edison, Nora, Hagedorn, and Terenzini (1996) concentrates specifically on freshman university students' opinions about diversity issues. Their findings confirmed that students immersed in the university environment (i.e., those who were living on campus, participating in extracurricular activities, and actively engaging in relationships with their university peers) experienced a statistically significant increase during their first year in their level of openness to diversity issues. Because their research concentrated solely on diversity issues, however, one cannot apply their findings to general opinions and value systems.

Prior to Pascarella et al. (1996), Heath (1968) studied freshman students and found that the freshman year, perhaps even the first few months, was particularly important in attitude change. Loeb and Magee (1992) also concluded that much of the change in political views occurs in the *first* semester of college. I built on this research by measuring the specific factors associated with students' attitudes at the beginning of and during college.

In this study, I define *liberal* ideas as those that favor progress, reform, and political, gender, and social equality. Liberalism questions existing social and institutional arrangements such as the economic, criminal justice, and military systems (Eitzen, 1979). In contrast, conservatism promotes the status quo and tradition in the economic, social, and political orders. Conservatives see individuals, not institutions or society, as responsible for their status (Eitzen, 1979).

Early studies in sociology found that American college students were conservative and remained homogeneous (Jacobs, 1957). While this may have been true in the 1950s, popular media today would have us believe that college liberalizes students (Hanson, 2003; Slanaker, 2003). Some empirical research supports this view; Weakliem (2002), for example, found that higher levels of education are associated with liberal political opinions on a variety of issues ranging from civil liberties and rights of minority groups to gender roles. If Weakliem is correct, then it is plausible that highly educated parents promote liberalism in their children.

Additional research (e.g., Feldman and Newcomb, 1969; Astin, 1977; Kayne, 1978; and Lottes and Kuriloff, 1994) supports the notions that students' opinions change and that college liberalizes people. Specific reasons for this shift include "the absence of parents, new experiences, the exposure to a wide range of persons and ideas and peer pressures" (Eitzen, 1979, p. 123). Pascarella and Terenzini (1991)

also found that students' opinions change during college and that the changes are the "cumulative result of a set of interrelated experiences sustained over an extended period of time" (p. 610). Thus, individuals who stay enrolled in college for extensive periods of time are likely to experience changes in opinions based on the university environment.

Aside from experiences, personal characteristics such as gender, race and ethnicity also influence the development of college students' opinions (Vogelsang, 2001). Dey (1996) and Sax and Arredondo (1999) conclude that, in addition to these factors, family income and parents' education are also related to political development. While much research evaluates race and gender separately, it is important to look at the interplay between these factors. If college affects students differently based on race, ethnicity, and gender, it is essential to compare men's and women's opinions within racial and ethnic groups (Vogelsang, 2001).

RACE AND ETHNICITY, GENDER AND SOCIOECONOMIC STATUS

Research shows that, in addition to race, ethnicity is an important factor when evaluating college students' attitudes, because people of the same race but different ethnic groups may have far different experiences (Vogelsang, 2001). Regarding gender, various scholars conclude that females have more liberal ideas than males (Vogelsang, 2001; Dey, 1996; Loeb and Magee, 1992). These findings contrast with early 20th century research, where Nelson (1938) found that females were more conservative than males. Perhaps the differences are related to the 1960s women's and civil rights movements.

Dey's research (1996) on socioeconomic background shows conflicting views with respect to the effects of education and social class on individual attitudes and values. Dey (1996) found that coming from a "well-to-do" family is associated with higher levels of conservatism, while higher levels of parental education are associated with higher levels of liberalism among college students.

Views on affirmative action are another marker of one's liberalism or conservatism. Children of parents who have higher levels of income and education are more likely to want to end affirmative action.¹ The one exception is African Americans. African Americans who have higher levels of education and income are *less* likely to oppose affirmative action than are others in the same economic bracket (Sax and Arredondo, 1990). Whites tend to have opinions on affirmative action that are more conservative than those of non-whites, perhaps because whites have less to gain and more to lose with implementation of affirmative action practices. Compared with whites, non-whites seem to have the most to gain from the implementation of affirmative action practices, especially high-achieving African Americans who are in a position within society to benefit the most from affirmative action practices (Sax and Arredondo, 1990). Overall, African Americans exhibit more liberal ideals than other non-whites and whites (Vogelsang, 2001).

FACULTY AND ACADEMIC MAJOR

In addition to factors such as socioeconomic background, race, ethnicity, and extracurricular activities, the level of faculty interaction with students has been suggested as a possible influence on student attitudes (Vogelsang, 2001). Additionally, Astin (1993) found that differences in student attitudes were associated with different academic majors. This followed Eitzen's (1979) research that the social sciences tend to focus on issues that may influence students to question their identities—issues such as social inequality, gender roles and individual culpability. For example, liberal professors who teach sociology courses may "persuade a significant portion of students toward the political left" (Eitzen, 1979, p. 123). Course curricula and pedagogical practice in the social science disciplines encourage student discussion, with liberal faculty facilitating discussion and providing empirical data that call into question traditional theories about topics such as juvenile crime and social welfare (Eitzen, 1979). Eitzen (1979) found that,

in introductory sociology classes, the opinions of 71 percent of the students shifted in a liberal direction.² On the other hand, the engineering and the science fields rely more on “factual” knowledge, and therefore students are less likely to question their identity or society and more likely to regard authority as being “right” and “having the answers” (Vogelsang, 2001). Since students in the engineering and science fields have less exposure than social science students to courses that influence them to question social inequities or personal views, their views are less likely to shift as a result of their academic major.

Despite these influences, however, faculty influence tends to be smaller and more indirect than peer influence. Dey (1996) concluded that attributing liberalization in students’ views to faculty interaction might be “at best imprecise and at worst misleading,” as faculty-facilitated discussion occurs in the company of one’s student peers, a setting in which the students’ ideas form the bulk of the discussion (p. 551). None of this research, however, answers the even more fundamental question of whether majors affect students’ attitudes or attitudes influence the students’ choice of major.

Despite the findings that a student’s gender, race and ethnicity, family income, parents’ levels of education, and academic major may influence his or her opinions, prior research has not specifically examined college students’ political opinions regarding these specific factors, nor has it assessed the influence of students’ political opinions upon entry into college. This is where my research differs: my study assessed the factors associated with students’ initial political orientations and changes in attitudes during the first year of college, and my findings—as well as, my “Entrenchment Hypothesis”—provide a deeper understanding of attitudinal change among freshmen.

Data

To evaluate the “Entrenchment Hypothesis,” I surveyed subjects on their political views shortly after they arrived on campus, and again after they had been on campus for approximately five months. Respondents selected for this study, which took place in the 2003-2004 academic year, were first-year students at the University of California, Davis who were living on campus and who were over the age of 18 as of October 2003.

The University of California at Davis is in a small college town in Northern California. The University, a land grant institution with a strong emphasis on agriculture, has a large student population, enrolling about 23,500 undergraduates and 4,270 graduate students annually. It is a residential campus and attracts students from both urban and rural communities. With the assistance of the University’s Student Affairs Research and Information Department (SARI), I drew a random sample of students from the 2003-2004 freshman class.

I limited the sample to students over the age of 18 to avoid the additional step of gaining parental consent, something that may have reduced the response rate and delayed the data gathering; I also limited the sample to freshmen living in residence halls. Although these restrictions may have increased the selectivity of my sample, they provided several benefits. First, they made it easy to track the sample population, because student housing notified me of address changes, whether the subject had merely moved to a new residence hall or room or had stopped attending school altogether. A second benefit accrues to the fact that, when controlling for the influence of various predictors, living on-campus, in residence halls, is one of among only a few variables that has been shown to have a significant effect on student attitudes (Pascarella et al., 1996). Residence halls typically provide an environment where students are more susceptible to influence and more likely to experience changes in opinion (Astin, 1993), because they are exposed to diversity on a scale that they have not experienced previously as they interact with peers who are different from themselves (Pascarella et al., 1996).³

While not all hall residents interact in peer groups to the same degree, another benefit to limiting the sample to this population is the greater likelihood that students will interact more widely with a diverse

group of peers. Students may self-select to live in residence halls that limit their exposure to peers different from themselves—for example, by living in themed residence halls according to gender, cultural interests or academic interests (e.g., Chicano/Latino, Biological Sciences, Communications, etc). But even the peer group in these themed dorms is likely to be more diverse than that within their families and home communities.

INSTRUMENT DEVELOPMENT

The surveys examined participants' attitudes and beliefs on a variety of subjects (similar to Sax and Lindholm, 2002, and Weakliem, 2002). Many of the survey items are borrowed from the General Social Survey (GSS). When formulating my survey items, I used some GSS items verbatim and modified the wording of others. The surveys used a five point Likert scale for 12 close-ended items to measure peoples' levels of agreement or disagreement with statements on issues ranging across the environment, gender roles, homosexuality, pre-marital cohabitation, affirmative action, capital punishment, marijuana legalization, and government spending. Examples of such statements are, "Marijuana should be made legal" and "People convicted of murder should be subject to the death penalty." This information was used to place the subjects on a conservative-moderate-liberal continuum.

In addition to the attitude questionnaire, I asked participants about their gender, race and ethnicity, perceived household income during high school, and mother's and father's levels of education. As I had done with the GSS, when formulating the background questionnaire I used or slightly modified items from the 2000 Census.

SURVEY DISTRIBUTION AND FOLLOW-UP

To obtain a high response rate, I followed Dillman's (1978) "Total Design Method" (TDM) for self-report mail surveys. Dillman (1978) advises that providing research subjects with personalized letters, pre-addressed/stamped envelopes, clear definitions of the study's purposes, and easy accessibility to the researcher(s) effectively increases response rates. I sent each sample subject a hand-signed letter of introduction on university letterhead, requesting his or her assistance in the study, and the research subjects protocol consent materials developed by the University's Office of Human Research Protection.

To evaluate whether freshman students' political orientations changed over their first months in college, I distributed the same survey twice, shortly after subjects had arrived on campus and then again after approximately five months.⁴ I had originally planned to distribute the survey before the students arrived on campus; however, due to a delay in the review of my survey by the University Human Subjects Committee, I distributed the first set of survey materials in the fall of 2003, approximately six and a half weeks after freshmen had arrived at the University. This delay in contacting students may have had an influence on the study results. First, because it was mid-quarter, students may have been overwhelmed with academic course work and/or other commitments and may have been less willing to fill out the survey than they would have been earlier in the academic term. Second, the opinions expressed by the students during the first distribution of the attitude survey could have been affected by their first six weeks at college. If either of these is true, the survey results will understate the magnitude of the change in students' opinions early in their undergraduate careers.

I sent follow-up letters to non-respondents two weeks after the initial contact, asking them to fill out the survey and consent forms, and emailed the non-respondents after the tenth week of the quarter requesting that they fill out the forms and survey. I also provided the subjects with a link to download the consent forms, background questionnaire and survey from the Internet.

I distributed the winter survey approximately four months and one week after students had arrived on campus. The winter survey targeted only those who had responded to the first survey. I sent reminder

email messages to non-respondents three weeks later. Three weeks after emailing them, I mailed an additional survey and pre-addressed, stamped envelope to each remaining non-respondent. The retention rate was 94% (only eight people left the study); all participants returned survey number two by approximately five and half months after they had arrived on campus.

Data Analysis

I evaluated the surveys using STATA statistical analysis software. The surveys' 12 close-ended items were recoded so that high scores indicated more liberal attitudes and low scores indicated more conservative attitudes. Individual items were scored from one to five and then summed across the twelve items. A score of 12 indicated the most conservative orientation and 60 the most liberal. Scores of respondents' levels of agreement with liberal statements meant the following: 1) conservative (score of 12-30); 2) moderate (score of 31-41); 3) or liberal (score of 42-60). The total attitude scale had a Cronbach's alpha score of about 0.78, indicating that the survey reliably evaluated respondents' political orientations.

Of the subjects contacted initially, one hundred thirty-one participated, producing a response rate of 44%.⁵ The majority of respondents (approximately 55%) identified their parental income as above average. Additionally, there were more female (61.5%) than male (38.5%) respondents. While overrepresentation of females in social science survey research is common, this fact may have affected the study's results and generalizability. Eight respondents were not included in the analyses because they failed to complete the questionnaire.

I performed bivariate and multivariate regression analyses to test factors associated with respondents' attitudes. Regressions measure the likelihood of an outcome (in this case, students' political attitudes) based on specific variables—for example, the general political attitudes that female respondents hold compared with those of male respondents during fall quarter. The coefficient for female indicates: a) whether the association between female respondents and political attitudes is statistically significant; and b) what political attitudes female respondents are likely to have compared with male respondents (i.e., more conservative or more liberal).

Since academic major was the only empirical factor with which Student Affairs Research and Information provided me for all 300-sample subjects, I wanted to assess whether subjects' majors correlated with their decision to respond or not. I found that subjects' majors were not associated with whether or not they participated in the study (Table 1, Appendix 1). If I had found that students with certain majors were statistically more likely to respond than students with other majors, I would have concluded that the sample was less representative of the freshman class.

The first survey indicated that 9% of respondents were conservative (average score, 29.7); 37% were moderate (ave. score, 38.2); and about 54% were liberal (ave. score, 42.2). I evaluated whether there was a correlation in my sample between the factors that researchers had previously associated with students' political orientations and changes in political orientations.⁶

Neither mothers' nor fathers' educational levels were associated with the respondents' initial political views (Table 3, Appendix 1). These findings are inconsistent with the work of Sax and Arredondo (1999), which concluded that the levels of education of students' parents were associated with students' political orientations. They also contrast with Dey's (1996) notion that people who have parents with higher levels of education are more likely to have liberal views.

Respondents' initial views were not associated with respondents' perceived levels of income as proven by the large standard error (Table 3). This finding contrasts with Dey's (1996) conclusion that income is related to differences in political orientation of college students. Also in contrast to Dey (1996), as well as Nelson (1958), Vogelgesang (2001), and Loeb and Magee (1992), a respondent's gender did not have a statistically significant association with his or her initial attitudes (Table 3).

I wanted to assess not only perceived income levels, but also the relationship between students' socioeconomic status and political orientation. When comparing attitudes across socioeconomic status, the analyses reveal that no factor was associated with respondents' initial values (Table 3). This finding contrasts with Sax and Arredondo's (1991) assertion that a person's socioeconomic status is associated with his or her political views.⁷

I also found that a respondent's race and ethnicity were not associated with his or her political values (Table 3), a finding that contrasts with Sax and Arredondo's (1990) conclusion that whites have more conservative views than non-whites. This finding is limited, however, by this study's small sample size, which did not include many non-whites or non-Asians.

Compared with those students who were engineering majors, respondents with other academic majors did not have statistically significant associations with certain views (Table 3). When evaluating political orientation, I found no statistically significant relationships among gender, race and ethnicity, perceived income, academic major, and parents' levels of education (Table 3). This is consistent with Nelson's (1957) early research and contrasts with more recent research in sociology (see Vogelgesang, 2001; Dey, 1996; and Loeb and Magee, 1992).

Figure 1 (Appendix 2) shows respondents' attitudes during fall and winter on two separate smooth curves. The curves show that, while respondents had *slightly* more conservative attitudes in winter than in fall, attitudes did not change appreciably over the span of this study. Nevertheless, it was important to assess whether the shifts in respondent's views were statistically significant. A *p*-value of less than 0.10 means the relationship/association (in this case, a shift in attitudes) is statistically significant. While respondents' attitudes during winter were consistent with respondents' attitudes during fall, the shifts in values were not statistically significant, as documented by the large *p* value of 0.7306 (Table 4).

In summary, the test suggests that, when compared with a person's initial political orientation as conservative, moderate or liberal, shifts in attitudes were not statistically significant. Perhaps students were affected by their first six weeks of college and their initial responses to the first survey measured those influences, thus impairing the ability to measure the difference between initial and changed political values, or perhaps the time between the survey distributions was not long enough to gain statistically significant observations.

CHANGES IN ATTITUDE

The political orientation of the 116 remaining members of the sample who responded to all items on the winter survey was on average moderately liberal, with a score of about 42.⁸ Respondents to the winter survey had average attitude scores of 29.8 (approximately 9%), 38.1 (38%) and 42.1 (53%) for Conservatives, Moderates, and Liberals, respectively. Thus, attitudes during winter tended to be generally consistent with respondents' initial (fall) attitudes.

If my "Entrenchment Hypothesis" held true, respondents' attitudes would have polarized based on their initial attitudes. For example, a respondent with an attitude score of 20 during the fall would be expected to have a score lower than 20 during winter. For all conservative respondents, I would expect the average attitude score to decrease during winter, cumulatively making the slope for conservative respondents' attitudes less than one when comparing fall and winter attitudes. Comparing fall and winter attitudes for moderates would not be expected to yield extreme changes. Comparing liberal respondents' views would be expected to yield winter attitude scores greater than those in fall. My findings, however, show that no matter what the respondents' initial orientations, their values shifted to the more conservative, as illustrated by the slope values of less than one.⁹ However, the shifts were different based on a subject's initial political orientation (Table 4). Those with conservative initial values shifted the most and those with liberal initial values shifted the least.

Figure 2 (Appendix 2) shows predicted values for the follow-up survey based on respondents' initial values. The line illustrates respondents' predicted attitudes during winter based on their attitudes for fall, but does not offer convincing support for my hypotheses of an entrenchment in values. The dots on Figure 1 illustrate respondents' attitudes during fall and during winter. Generally speaking, the actual attitudes of respondents are similar to the predicted values.

A respondent's gender, race and ethnicity, perceived income, and academic major could not be associated with change in attitudes (Table 5). These findings differ from previous research on changes in attitude as they relate to parents' levels of education (Dey, 1996; Vogelgesang, 2001), and students' academic majors (Eitzen, 1979; Vogelgesang, 2001; Astin, 1993). Regarding academic major, this finding may be consistent with Dey's (1996) assertion that major has limited influence on people's opinions.

While perceived income was not associated with shifts in values, the coefficients show signs of following Dey (1996) and Sax and Arrendondo's (1992) findings that people with higher levels of income are likely to become more liberal during college, and people with average and lower income levels are likely to become more conservative. Perhaps if I had measured respondents' actual income levels, I would have gained more reliable findings regarding respondents' income levels and changes in attitude.

GENDER

Although a respondent's gender was not associated with a statistically significant change in attitude, there was an association between being female and a shift toward liberalism. This finding coincides with those by Vogelgesang (2001), Dey (1996), and Loeb and Magee (1992), but contrasts with Nelson's (1958) earlier finding that females' attitudes became increasingly conservative during college when compared with the attitude change in their male peers. (Again, this difference may be attributable to the influence of the women's movement.)

PARENTAL LEVEL OF EDUCATION

When evaluating respondents' shifts in attitudes in terms of their parents' levels of education, independent of other variables, I did find a statistically significant association. The views of respondents who had mothers with some college or post-baccalaureate education shifted toward conservatism, regardless of their fathers' level of education.

Although not statistically significant, parents' educational levels seem to be associated with shifts in views (Table 5). Respondents with mothers who had at least some college were associated with conservative shifts in political orientation, while respondents with mothers who had no college (a category encompassing those who had no schooling whatsoever up to those with a high school degree) were likely to be associated with liberal shifts in opinion. A father's level of education had the opposite association on political orientation: respondents with fathers who had at least some college were likely to be associated with shifts toward liberal political opinions, whereas respondents with fathers who had no college were likely to develop more conservative views over time.

PARENTAL LEVEL OF EDUCATION AND INCOME

In evaluating respondents' shifts in opinion in terms of socioeconomic status, I controlled for respondents' perceived income levels and fathers' levels of education; respondents with mothers who had at least some college were associated with change in a conservative direction (Table 5). Although not statistically significant, when controlling for respondents' perceived income levels and mothers' levels of education, my research found that those with fathers who had at least some college showed signs of attitude change toward the liberal end of the spectrum.

These patterns are quite interesting in light of previous research findings that women tend to be more

liberal (see Dey, 1996; Vogelgesang, 2001; Loeb and Magee, 1992). If women are more liberal, one would assume that mothers with a higher level of education influence liberal thought among their children. Not only is that association *not* found, but just the opposite occurs: respondents who had mothers with at least some college are associated with more conservative views than respondents with less educated mothers. Whether or not the mother had at least some college-level education was the only statistically significant factor associated with respondents' changes in attitude; more specifically, respondents who have mothers with at least some college are associated with shifts toward conservatism (Table 5).

The same held true when evaluating respondents' perceived income levels, whether they saw their income level as below-average, average, or above-average. By contrast, respondents with fathers who have at least some college are associated with shifts toward liberalism when evaluating perceived income levels (Table 5).

FACTORS WITH NO SIGNIFICANT ASSOCIATIONS: RACE AND ETHNICITY, ACADEMIC MAJOR

This study did not find any statistically significant association between changes in respondents' attitudes, and their race and ethnicity or their academic major. Although not statistically significant, attitudes of respondent who identified as full Asian or non-white and non-Asian (e.g., African Americans, Hispanics) showed tendencies toward conservatism, compared with respondents who identified as white (Table 4). In concurrence with the findings of Dey (1996) and in contrast to those of Astin (1993) and Vogelgesang (2001), when controlling for other variables, academic major was not associated with differences in political shifts (Table 5).

Discussion

For this study it was important for a variety of reasons to evaluate family income, parental education, race and ethnicity, academic major, and gender as factors. For example, socioeconomic status is often defined in terms of education and income levels; I wanted to test the association between socioeconomic status and people's views, because people often assume that differences among social classes correspond with differences in attitudes (e.g., toward issues of social welfare and individual responsibility).

In recent decades, the average American household income has decreased relative to the cost of living, while the number of people attending college has increased. The decrease in income levels and increase in educational levels make it essential to look at these factors not only collectively but also separately. Because the gap between the rich and the poor in America is widening, it is important to know how people's attitudes vary among different income levels. Since people who go to college tend to have parents who went to college, it is also imperative to look at the relationship between people's attitudes and their parents' levels of education. If people's attitudes are contingent on their parents' levels of education, differences in opinions or ideological gaps that seem to be based on socioeconomic level may actually be more accurately related to education.

While race relations in American society have improved greatly since the implementation of desegregation laws, discrimination based on race and ethnicity still exists. If different racial and ethnic groups have dissimilar political opinions, it is important to learn about the experiences that influence such differences in opinion. Also, if shifts in students' attitudes differ among academic majors, it would be important to know whether the choice of academic major influences opinions, or conversely, whether people with certain attitudes are more drawn to certain academic majors.

Finally, assessing the association between gender and political attitudes has many benefits. Women's increased access to higher education and to the workforce in the past decades has certainly affected not only their individual personal experiences but the family structure in America as well (Hochschild, 1989). Perhaps these changes have influenced men's and women's political views differently, or perhaps

political views have been affected in a more uniform way, regardless of one's gender. If gender is a factor in such attitudinal changes, perhaps it is due to America's historically patriarchal society, and one must wonder why some views have been so resistant to change despite the transformation of social and family structure.

LIMITATIONS

While the response rate for this study is similar to response rates found in some social science research, and while the original sample for the study was representative of UC Davis freshman, I cannot be sure that those who chose to participate in the study responded in the same way as would those who were invited but decided not to participate. Also, the higher percentage of female respondents and the different racial/ethnic composition of the sample, compared with the demographics of the freshman class in general, make it impossible to generalize my findings.

Additionally, analyses that contained income level were contingent on the *perceived* rather than *actual* incomes of respondents' families. Income may emerge as a more significant factor if actual household income were used. Analyses involving race and ethnicity are also limited. Because of the small sample size, I was unable to include Vogelgesang's (2001) methodology of testing political orientations with respect to ethnic groups. The small sample size also may have affected analyses involving parents' levels of education, as I was not able to compare specific levels of education. Additionally, because information about academic major was obtained from respondents' original college applications and subjects were not surveyed on their academic major during each distribution of the survey, results do not reflect any changes of major that may have occurred prior to the study's completion.

A more significant limitation is that changes in attitudes during college do not necessarily mean that college itself is making the impact. Other factors—such as the political climate of society, or “overall national trends”—may influence such attitude changes (Wilder, Hoyt, Surbeck, and Wilder, 1986).^{10,11} Changes in political orientation of students during college could also result from normal maturation and not from the college's or even society's political climate, because the age of the average entering college student coincides with the stage of “Early Adult Transition” as described by Levinson, Darrow, Klein, Levinson, and McKee (1978), and is also very close to the time when people are revising their values and attitudes (McCrae and Costa, 1990). For example, when Rich (1977) compared changes in opinion between college and non-college groups, he found no difference between the groups in the amount of change; age may have effects that are distinct from cohort and period effects, findings that should be accounted for in future research on the influence of college.

This study's methodology can certainly be improved. To better examine change in political orientation, it would be best to assess students' political views before they arrive on the university campus rather than weeks after, and later in the academic year instead of less than six months after their arrival. To better generalize the study's findings to the sample population, researchers will want to achieve higher response rates. This could possibly be accomplished by using online surveys rather than mail-out surveys. In addition to doing quantitative analyses, including qualitative methodology could further benefit the research design of studies involving freshman college students. Much prior research attributes students' attitude change primarily to faculty, extracurricular activities, and peers. Speaking to first year university students would provide additional insight into these factors and allow researchers to evaluate the factors in greater depth.

Because this study was limited to freshmen at one public university, I am unable to generalize my findings to American college students. Further researchers should consider taking a representative national sample of college students from both public and private universities, in order to evaluate political orientation among all American college students. However, because even a national sampling of college

freshmen would have limitations, further researchers might consider using Rich's (1977) research design by including both college and non-college students as a means of assessing the degree to which changes in attitude are contingent on college. Having a control group of non college-aged freshmen would allow scholars to measure people's political orientations and to determine whether college actually has any effect on political views or whether political orientation trends are consistent for both cohorts.

Because it would be challenging to obtain a nationally representative sample of college freshman, a study involving an evaluation of freshmen at a single university could be improved by having a larger sample size than 300 students. With regard to students' income levels, analyses could be improved by obtaining students' actual household income levels during high school instead of perceived income levels, especially since prior research has shown that people can incorrectly project their levels of income. Also, assessment of the association between a student's academic major and political orientation could be improved by surveying students on their academic majors during each distribution of the survey rather than merely using the academic major they declared on their college applications.

This study's results partially substantiate the Entrenchment Hypothesis, in that students' attitudes shifted differently based on whether they were initially conservative, moderate or liberal. Conservative students became more conservative and moderates stayed almost the same. The fact that the association between fall and winter attitudes was not statistically significant could be due to the small time frame (approximately four months) between the two survey distributions.

This study shows that the evaluation of freshman students' opinions holds value. Despite the small time frame and relative homogeneity of respondents' characteristics, certain factors were associated with students' political orientations and changes in attitude over time. The finding that respondents who had mothers with at least some college became more conservative, compared with respondents whose mothers had no college, is entirely new and surprising and deserves further evaluation.

Despite the fact that there are rarely findings to support such a claim, the popular media as well as many prior researchers have highlighted the extensive liberalization that takes place during college. This study incorporated new methodology by assessing students' views on a continuum, and not merely asking students to self-identify their political orientations as conservative/Republican or liberal/Democrat. This methodology has the advantage of allowing scholars to assess students' actual political orientations based on students' views on various issues. Never before have scholars in higher education research assessed college students' actual political orientations or evaluated the factors associated with changes in college students' political orientations. This study not only proves that we can assess students' views and chronicle changes, but also introduces a new hypothesis. Even if it turns out to be true that there is a dominant liberal climate in most college campuses today, the Entrenchment Hypothesis could help explain why, despite that climate, certain students maintain conservative viewpoints.

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Notes

1. Though my study concentrates on general political attitudes, it is important to remember the events of October 2003 and February 2004 regarding specific topics. People may have thought more about affirmative action issues in fall 2003 because of Proposition 54 on California's ballot, which stated that gathering racial statistics would become illegal. Additionally, the highly publicized marriages of gay couples in San Francisco during winter 2004 may have influenced people to think about gay rights more than usual.

2. Eitzen (1979) surveyed Introductory to Sociology students about change of status quos, societal arrangements and attitudes toward individual and societal culpability for social problems. The surveys were administered on the first day of class and again near the end of the course. The attrition rate of students was normal, consisting of students who dropped the course or were absent on the day of the second administration of the survey questionnaire. The study included professors with a range of orientations toward Sociology—from extreme Marxists to functional-conflict theorists.
3. Pascarella et al.'s (1996) study did not analyze student opinions on various subjects; instead it concentrated on college students' attitudes with respect to diversity issues.
4. The fall survey included a background questionnaire, a survey, consent forms and a pre-addressed, stamped envelope to return research items to me. In winter quarter I sent students the same survey, a pre-addressed stamped envelope to return back to me, and copies of the participant's consent forms for his or her records. All survey results were kept confidential, never to be associated with the participants' UC Davis records.
5. Three subjects left the University, and were considered "non-respondents."
6. See Sax and Arredando (1999), Astin (1993), Loeb and Magee (1992), Eitzen (1979), Weakliem (2002), Dey (1996) and Vogelsesang (2001). The factors included gender, race and ethnicity, academic major, parents' levels of education (see Table 1 to view breakdown of these nominal variables) and perceived household income during high school (see Table 1 to view breakdown of these ordinal variables).
7. Sax and Arredando defined socioeconomic status in terms of parents' income and education levels.
8. In winter, 123 subjects responded to the survey, but seven were not included in the analyses because they chose not to fill out the entire survey.
9. A slope value of less than one means respondents' winter attitude scores were lower than their fall attitude scores, and thus more conservative.
10. See Hastings and Hoge's (1986) study on college men and their moral attitudes (e.g., about premarital sex, marijuana use and homosexuality), which showed a trend toward liberalization in male students' attitudes between 1948 and 1967, little change in opinions between 1967 and 1974, and a shift toward conservatism between 1974 and 1984.
11. Wilder, Hoyt, Surbeck, Wilder & Carney (1986) found smaller gains in liberalism in students of the 1980s compared with students of the 1960s and 1970s.

References

- Astin, Alexander W. (1977). The new realists. *Psychology Today*, 11, 50, 53, 105-106
- Astin, Alexander W. (1993). *What matters in college?* San Francisco: Jossey-Bass.
- Dey, Eric L. (1996). Undergraduate political attitudes: An examination of peer, faculty, and social influences. *Research in Higher Education* 37(5), 535-554.
- Dillman, Don. (1978). *Mail and telephone surveys: The total design method*. New York: Wiley.
- Eitzen, Stanley D., and John R. Brouillette. (1979). The politicization of college students. *Adolescence* 14(53), 123-34
- Feldman, Kenneth A., and Theodor M. Newcomb. (1969). *The Impact of college on students* (Volumes 1 and 2). San Francisco: Jossey-Bass.
- Fish, Stanley. (2004). Intellectual diversity: The Trojan Horse of a dark design. *The Chronicle Review* 50(23), B13. Retrieved from <http://chronicle.com>
- Hanson, Victor D. (2003). Topsy-turvy: American universities are places of dizzying unreality—and this does considerable harm. *National Review* LV(19), 34-42.
- Hastings, Philip K., and Dean R. Hoge. (1986). Religious and moral attitude trends among college students, 1948-84. *Social Forces* 65(2), 370-377.
- Heath, D. (1968). *Growing up in college*. San Francisco: Jossey-Bass.
- Horowitz, David. (2004). In defense of intellectual diversity. *The Chronicle Review*, 50(23), B12. Retrieved from <http://chronicle.com>

- Jacobs, P. E. (1957). *Changing values in college*. New York: Harper & Bros.
- Kayne, Jon B. (1978). *A re-examination of the norms for American college student values*. Doctoral dissertation. University of Northern Colorado.
- Levinson, D. J., C. N. Darrow, E. B. Klein, M. L. Levinson, and B. McKee. (1978). *The seasons of a man's life*. New York: Knopf.
- Loeb, Roger C., and M. Patricia Magee. (1992). Changes in attitudes and self-perceptions during the first two years of college. *Journal of College Student Development* 33(4), 348-55.
- Lottes, Ilsa L. and Peter J. Kurlioff. (1994). The impact of college experience on political and social attitudes. *Sex Roles: A Journal of Research* 31(1-2), 31-54.
- McCrae, R. R., and P. T. Costa. (1990). *Personality in adulthood*. New York: Guilford
- Nelson, E. (1938). Radicalism-conservatism in student activities. *Psychological Monographs*, 50, 1-32.
- Pascarella, Ernest T., and Patrick T. Terenzini. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco: Jossey-Bass.
- Pascarella, Ernest T., Marcia Edison, Amaury Nora, Linda S. Hagedorn, and Patrick T. Terenzini. (1996). Influences on students' openness to diversity and challenge in the first year of college. *The Journal of Higher Education*, 67, 174-195.
- Rich, H. E. (1977). The liberalizing influence of college: Some new evidence. *Adolescence*, 12(46), 199-211.
- Sax, Linda J. and Jennifer Lindholm. (2002). *The American freshman: National norms for fall 2002*. Higher Education Research Institute, Graduate School of Education & Information Studies, University of California, Los Angeles.
- Sax, Linda J. and Marisol Arredondo. (1999). Student attitudes toward affirmative action in college admissions. *Research in Higher Education* 40(4), 439-459.
- Slanaker, Christy. (2003). Surviving your first year as a conservative college freshman. *Liberty's Flame*, 3(1), 14-15.
- Smith, T. W. (2002). *The NORC General Social Survey*. Chicago: University of Chicago, National Opinion Research Center.
- Villalpando, O. (1996). *The long-term effects of college on Chicano and Chicana students; "other-oriented values."* Doctoral dissertation. University of California, Los Angeles.
- Vogelgesang, L.J. (2001, November). The impact of college on the development of civic values: How do race and gender matter? Paper presented at the Annual Meeting of the American Educational Research Association, Seattle, Washington. (ERIC Document Reproduction Service No. ED 451791).
- Weakliem, David L. (2002). The effects of education on political opinions: An international study." *International Journal of Public Opinion Research* 13, 141-157.
- Wilder, D. H., A. E. Hoyt, B. Surbeck, and J. C. Wilder. (1986). Greek affiliation and attitude change in college students. *Journal of College Student Personnel*, 27(6), 510-519.

Appendix 1: Tables

Table 1. Respondents to survey #1, broken down by major.

ACADEMIC MAJOR	Responded to survey #1		
	No	Yes	Total
Ag/env/human sciences	16	8	24
Engineering	19	12	31
humanities	18	16	34
Life sciences	33	32	65
Math/physical science	21	18	39
Social sciences	49	32	81
Undeclared	13	13	26
Total	169	131	300

Pearson chi2(6) = 3.4206 *Pr = 0.755¹*

¹ Not statistically significant.

Table 2. Demographics.

SAMPLE SUBJECTS' MAJORS	Freq.	Percent
Ag/env/human sciences 1	24	8.00
engineering 2	31	10.33
humanities 3	34	11.33
life sciences 4	65	21.67
math/physical sciences 5	39	13.00
social sciences 6	81	27.00
undeclared 7	26	8.67
Total	300	100.00

INCOME	Freq.	Percent
Below average 1	23	17.97
Average 2	35	27.34
Above average 3	70	54.69
Total	128	100.00

RACE/ETHNICITY	Freq.	Percent
newrace		
Asian 1	45	34.62
White 2	62	47.69
Other* 3	23	17.69
Total	130	100.00

*Others include the following multiracial groups: Asian & Whites, Asian & Non Whites, Whites & Non Asians, Non Asians & Non Whites

PARENT'S LEVELS OF EDUCATION	Freq.	Percent
Mother's w/Some College & beyond	107	82.31
Father's w/Some College & beyond	104	83.20

**Table 3. Initial Attitudes:
Bivariate and multivariate regressions of students' attitudes in fall.**

	Combined	Mom's Education	Dad's Education	Mom's Education and Income	Gender	Income	Race and Ethnicity	Academic Major
Mom w/some college or more	-0.128 (2.635)	-0.057 (1.662)		-1.050 (1.838)				
Dad w/some college or more	-3.076 (2.617)	-1.674	(1.715)					
Below Average Income	-0.693 (2.245)			0.411 (2.118)		0.765 (2.019)		
Above Average Income	2.293 (1.638)			2.663 (1.531)		2.515 (1.504)		
Females	-1.267 (1.431)				-1.365 (1.322)			
Asian	-0.060 (1.571)						-0.859 (1.442)	
NonWhite OR NonAsian	-2.051 (2.016)						-1.474 (1.853)	
Ag/env/hum sci major	4.949 (3.536)							4.429 (3.484)
Humanities major	5.358 (2.955)							4.667 (2.861)
Life sciences major	2.583 (2.565)							2.233 (2.540)
Math/phys sci major	2.063 (2.834)							1.389 (2.758)
Social Science major	1.793 (2.585)							1.133 (2.540)
Undeclared major	1.880 (3.068)							2.000 (3.008)
Constant	42.131** (3.648)	41.087** (1.498)	42.429** (1.562)	40.312** (1.909)	42.938** (1.948)	39.485** (1.240)	41.574** (0.921)	39.000** (2.173)
Observations	123	123	123	123	123	123	123	123
R-squared	0.09	0.00	0.01	0.03	0.01	0.03	0.01	0.04

Standard errors in parentheses

* significant at 5%; ** significant at 1%

Table 4. Regression of Winter Attitudes on Fall Attitudes.

RESPONDENTS	Winter Attitudes-slope
Conservative in fall	0.784** (0.289)
Moderate in fall	0.930** (0.095)
Liberal in fall	0.968** (0.071)
Constant	7.108 (8.164)
Observations	123
R-squared	0.86

Standard errors in parentheses

** significant at 5%; ** significant at 1%*

. test tatt1_con=tatt1_mod= tatt1_lib

(1) tatt1_con - tatt1_mod = 0

(2) tatt1_con - tatt1_lib = 0

F(2, 119) = 0.31

Prob > F = 0.7306

Table 5.
Changes in Attitudes: Bivariate & multivariate regressions from fall to winter.

	Combined	Academic Major	Gender, Race and Ethnicity	Gender	Parental Education	Income & parental Education	Race and Ethnicity
Female	0.069 (0.049)		0.068 (0.046)	0.073 (0.046)			
Asian [omitted]							-0.051 (0.050)
White	0.057 (0.053)		0.059 (0.052)				
Non White OR Non Asian	0.014 (0.070)		0.026 (0.067)				-0.001 (0.064)
Below Average Income [omitted]							
Average Income	0.040 (0.076)		0.023 (0.073)			0.033 (0.072)	
Above Average Income	0.089 (0.071)		0.084 (0.070)			0.107 (0.068)	
Mom w/some college or more	-0.243** (0.088)		-0.236** (0.084)		-0.186* (0.080)	-0.232** (0.083)	
Dad w/some college or more	0.124 (0.087)		0.135 (0.084)		0.148 (0.083)	0.147 (0.084)	
Ag/env/human sciences major	0.010 (0.122)	-0.011 (0.123)					
Humanities major	0.046 (0.101)	0.043 (0.099)					
Life sciences major	-0.031 (0.085)	-0.034 (0.086)					
Math/physical sciences major	0.006 (0.094)	0.045 (0.094)					
Social Science major	0.050 (0.085)	0.072 (0.085)					
Undeclared major	0.087 (0.106)	0.050 (0.106)					
Constant	-0.117 (0.110)	-0.030 (0.073)	-0.106 (0.087)	-0.105 (0.067)	0.023 (0.057)	-0.008 (0.064)	0.012 (0.032)
Observations	116	116	116	116	116	116	116
R-squared	0.13	0.03	0.10	0.02	0.05	0.08	0.01

Standard errors in parentheses

* significant at 5%; ** significant at 1%

Appendix 2: Figures

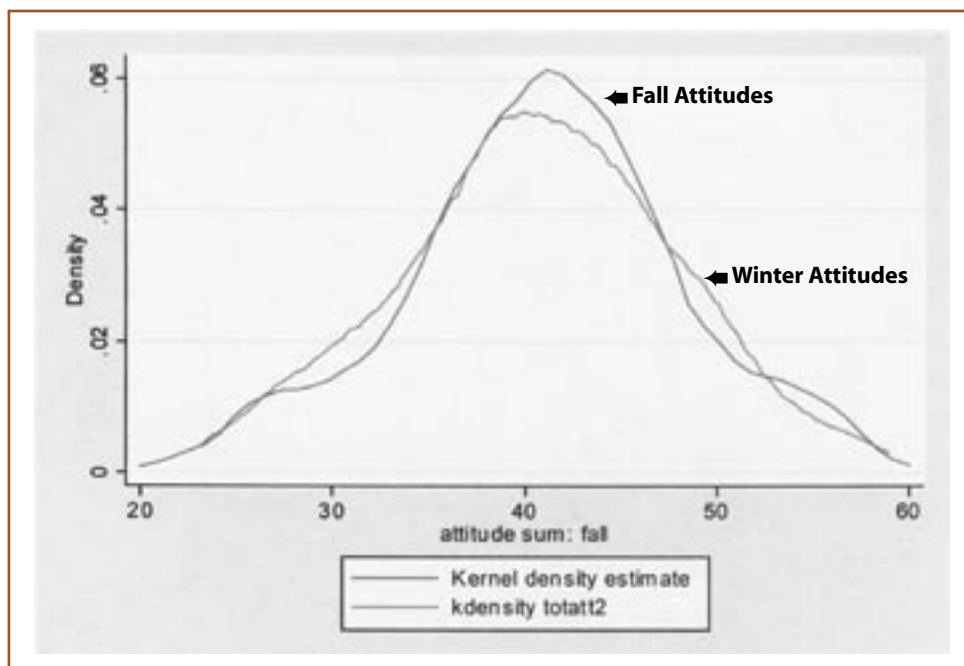


Figure 1. Smooth Curve of respondents views during fall and winter. (X-attitude scores, Y- relative frequency among respondents)

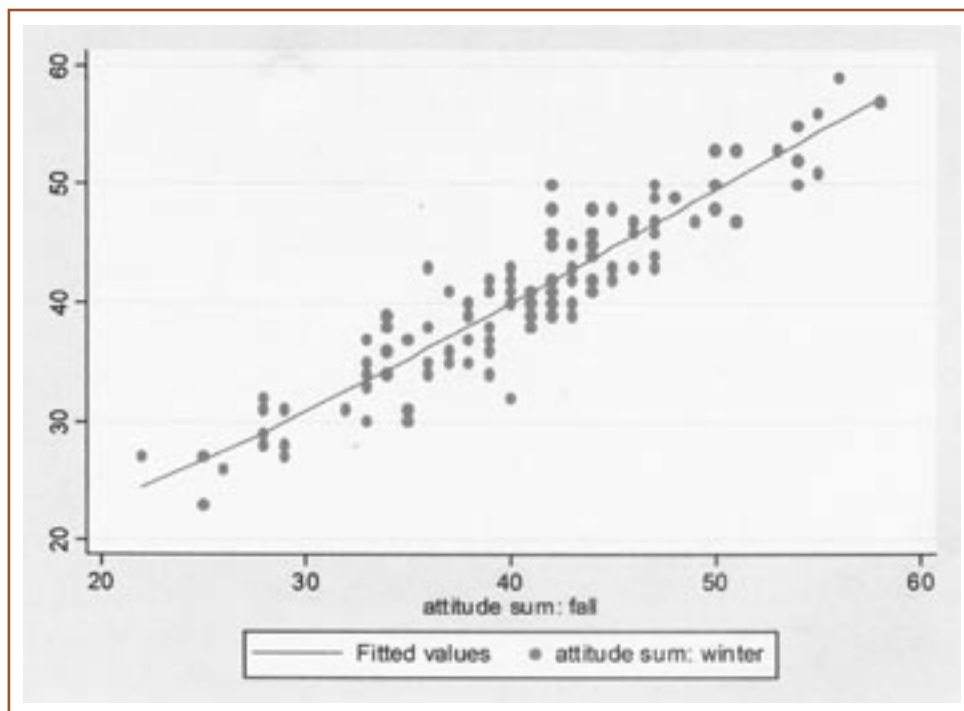


Figure 2. Winter Attitudes Compared with Fall Attitudes.