

Left Pipeline: Why Conservatives Don't Get Doctorates

Matthew Woessner, Ph.D.
Penn State Harrisburgh

April Kelly-Woessner, Ph.D.
Elizabethtown College

Mcw10@psu.edu
kellya@etown.edu

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When attempting to explain the dominance of the political left among college faculty, one must grapple with the dearth of conservatives in the academic pipeline. Every year, self-identified liberals apply to Ph.D. programs in far greater numbers than do conservatives. However, the reasons for this ideological imbalance are far from clear. Those on the political right tend to regard academia's liberal slant as evidence of discrimination against conservatives. By contrast, those on the political left may conclude that their overrepresentation in the academy is due to superior intelligence and abilities.

Explaining the ideological imbalance in academia requires that researchers move beyond small-scale observations and anecdotal experiences. While individual tales of misfortune may provide clues as to the overall cause of liberal dominance, they cannot tell us if those experiences are common. To examine the problem systematically, we turn to a set of surveys developed by the UCLA Higher Education Research Institute (HERI). Administered at both the beginning and the end of students' college careers, the HERI surveys ask students to assess their educational experience, career goals, personal values, ideological dispositions, and views on a number of important political controversies. The specific data used in our analysis is from a 2004 survey of 15,569 college seniors, attending 149 U.S. colleges, as well as the same students' responses to a survey taken at the beginning of their college career. While the survey cannot definitely explain why liberals pursue doctoral degrees more often than conservatives do, the results provide important clues to the question.

The ideological imbalance among college students is evident immediately in figure 1. The graph reveals that self-identified liberals outnumber conservatives by a substantial margin. Additionally, the figure shows that those on the political left are more likely to express an interest in pursuing a Ph.D. Overall, 13 percent of respondents indicated that they planned to

seek a doctorate. However, of those on the political left, 19 percent indicated that they planned to pursue a Ph.D., including 18 percent of liberals and 24 percent of the far left. Among students on the political right, slightly fewer than 10 percent indicated that they planned to get a doctorate, including 9 percent of conservatives and 11 percent of the far right. The college faculty pipeline is indeed slanted; In addition to being the minority, conservatives aspire to pursue doctoral degrees only half as often as liberals.

Drawing on theories espoused by both liberals and conservatives, we use the HERI data to examine several explanations for conservatives' relative disinterest in pursuing doctoral degrees. We consider whether liberals and conservatives differ in four measures, each of which has the potential to influence educational aspirations and career goals: satisfaction with the college experience, academic performance, relationships with faculty, and personal goals and values.

Overall College Experience

There is reason to assume that liberals and conservatives have different experiences in college. If critics of the academy are correct, the liberal enclave provides a chilly environment for conservatives. This may not even be the result of intentional discrimination. Rather, conservatives may simply find themselves to be in the minority and disconnected from the rest of the campus. This minority status may affect their assessments of the educational experience and their overall satisfaction with college. According to previous research, satisfaction with the college experience does help to predict whether a student will complete an advanced degree.¹

Figure 2 provides six distinct measures of college seniors' assessments of their undergraduate experience, broken down by self-reported ideology. Each of the assessment scores is based on a four-point scale, with a higher score indicating greater satisfaction. Of the six

measures, all of them indicate that students were, on balance, either satisfied or nearly satisfied with their college experience. What small differences do exist are in the opposite direction than one might expect. Conservatives and those on the far right actually report a slightly higher satisfaction with college (3.29) than do liberals and those on the far left (3.21). Accordingly, the measures of college satisfaction shown in figure 2 fail to explain the ideological imbalance among Ph.D.s.² Also, our data suggests that conservative students, as a whole, do not feel victimized in the liberal academy. This is not to say that they do not experience some hostility in individual courses or among certain disciplines. However, it appears that, if discrimination does occur, it does not profoundly affect their overall assessments of the college experience.

Academic Performance

One of the more straightforward theories concerning the ideological slant among Ph.D.s is that ideology reflects intelligence or academic performance, such that conservatives are not able to compete in the graduate school admission process. Even if we find that conservatives simply do not apply to graduate school, it is possible that they are self-selecting out of a competitive process that does not favor them.

It is worth noting that grades alone are not a perfect indication of intelligence. Differences in academic performance between liberals and conservatives could be a reflection of students' interest in the course material, their effort in school, or even discrimination in grading against students holding conservative viewpoints. Nevertheless, universities rely heavily on college grades as an indicator of candidates' preparation for graduate study. If conservatives earn lower marks than liberals do, their exclusion from academia may be justifiable.

The HERI College Senior Survey asks students to mark a box that best represents their college grade point average. Listed on a six-point scale, categories range from one, indicating

that the student scored a C- or less, to six, indicating that the student maintained a nearly perfect A average. Figure 3 breaks down the survey responses by both ideology and four broad academic categories: hard sciences, social sciences, humanities, and professional studies. The lines tracing the average grades within each discipline only extend to groups where at least thirty students were included in each category of the survey. For example, only 28 of the nearly 3000 humanities students indicated that they fell on the far right of the ideological spectrum, so we omitted their responses from figure 3, since small samples do not provide reliable estimates. The thick gray line running near the middle of the chart indicates the overall breakdown of grades by ideology.

At first glance, one pattern becomes immediately clear. Variations in reported grades do not vary as a function of conservatism, but rather as a function of moderation. Moderates³ consistently report lower grades than do their liberal and conservative counterparts. Concerned that less intelligent students might have self-identified as moderates, simply because they did not comprehend the ideological classifications used in the survey question, we reclassified the respondents based on their answers to a battery of political questions included near the end of the student survey. We found that students who take objectively moderate positions on important political issues do earn lower grades than their ideological classmates do.

Of the approximately 700 students on either edge of the ideological spectrum, students on the far left enjoy a grade advantage of two-tenths of a point over students on the far right. Of the 8000 students who identify themselves as merely liberal or conservative, their reported college grades are effectively identical. Taken together, students who identify as either liberal or far left do enjoy a slight advantage over students who see themselves as conservative or far right. However, this three one-hundredths of a point difference hardly explains the abundance of

liberals who seek doctoral degrees. Furthermore, in light of the fact that the more scholastically-challenged moderates pursue doctoral degrees in higher numbers than their conservative classmates (see figure 1), it is clear that academic performance does not explain the shortage of conservatives in graduate school.

As with grades, liberals appear to have an advantage when it comes to acquiring letters of recommendation. Looking to figure 4, a score of two indicates that a student received letters of recommendation “occasionally,” while a three means that a student received letters of recommendation “frequently.” As before, moderates report the least success in obtaining letters of recommendation. Compared to students on the far right, those on the far left earned scores one-tenth of a point higher. However, the left-right gap does not appear to be the result of ideological discrimination, since student success in obtaining letters is almost entirely a function of grades and the frequency with which the student visits professors during office hours. For reasons we will discuss later in the chapter, it appears that students on the ideological left are more likely to form a relationship with their professors, thus they have slightly more success in obtaining letters of reference for graduate school or employment.

Faculty Mentoring

When deciding on whether to pursue a Ph.D., one factor that may heavily influence undergraduates is their relationship with their professors. We hypothesize that faculty-student relationships depend, in part, on the identification of shared values. According to Erkut and Mokrus,⁴ “people emulate models who are perceived to be similar to themselves in terms of personality characteristics, background, race, and sex.” Students who find themselves ideologically at odds with the majority of their professors may be less likely to initiate out-of-class contact with faculty and form close mentoring relationships. In a number of studies,

researchers find that individuals generally avoid disagreement, choosing to associate with politically like-minded individuals.⁵ Even if students are not aware of faculty members' ideologies, students will likely seek mentors who have interests and values that reflect their own. For example, students interested in peace studies are likely to seek mentors in this area. The overrepresentation of liberals among college professors means that liberal students have a larger pool of possible mentors from which to choose and are more likely to find one with whom they share something in common. There is evidence that relationships with faculty mentors have positive effects on students' success during college.⁶ Hence, students who form close bonds with their instructors may be more likely to express an interest in obtaining a doctoral degree.

To assess whether ideological differences meaningfully influence the student-faculty relationship, we examined the responses to seven survey questions measuring students' interaction with faculty:

1. Student success in getting to know faculty
2. How often faculty provided emotional support & encouragement
3. Student ability to find faculty or staff mentor
4. How frequently the student met with faculty during office hours
5. How frequently the student had been a guest in a professor's home
6. How frequently the student worked on research projects with faculty
7. How frequently the student met with faculty outside of class or office hours

In order to claim that any given factor contributes to the disparity of conservatives with Ph.D.s, one needs to establish that the measure of student-faculty relationship is related to a student's interest in acquiring a Ph.D., and that it varies between liberals and conservatives.

When placed in a statistical model alongside measures of each student's ideology, sex, general assessment of college, grades, and various measures of personal goals, only three of the faculty-student relationship variables turn out to be important: being a guest in a professor's home, having opportunities to work on research projects, and meeting with the professor outside of class (See Appendix A for details on the full regression model). The first three factors (getting to know the faculty, receiving emotional support or encouragement, and the ability to find faculty or staff mentor) are completely unrelated to a decision to pursue a Ph.D. The fourth factor (meeting with faculty during office hours) is related to the decision to pursue a doctorate, but the magnitude of the difference is so small that it is not theoretically meaningful.

Figure 5 illustrates the responses to the three relevant student-faculty relationship measurements. For example, looking to the frequency with which a student has been a guest in a professor's home, a score of one denotes "not at all," a two denotes "occasionally," and a three denotes "frequently." It turns out that each of the three relevant student-faculty measures varies by student ideology. In each case, students on the political left enjoy a small advantage over students on the political right.

Somewhat surprisingly, the measure of students' visits to professors' homes shows the least evidence of ideological bias. Consistent with earlier findings, moderates are the least likely to have been the guests of their instructors. Overall, the liberals and conservatives report almost the same propensity to visit their professors' homes. However, while those on the far right do report a somewhat higher visitation rate than mere conservatives, the rate falls well short of those who identify themselves as being on the far left. Among strong ideologues, those on the left do appear to have better relationships with faculty.

Although the survey responses are not dramatically different, the remaining two measurements provide further indication that ideological factors may genuinely inhibit the student-faculty relationship. Whereas moderates are the least likely to visit a professor's home, conservatives are the least likely to meet with a professor outside of class or office hours. When it comes to conducting research—a pivotal experience for any undergraduate seriously considering a doctoral program—those on the far right come in dead last. Although the difference in scores is still relatively small, since the opportunity to conduct research is a relatively important predictor of interest in a doctoral degree, this distinction probably matters.

Figure 5 indicates that students on the political left (particularly on the far left) appear to enjoy somewhat closer relationships to their professors. To the extent that these relationships are correlated with a desire to pursue a doctoral degree, this advantage probably contributes to the shortage of conservatives interested in pursuing a Ph.D. However, judging from its relatively small influence on the statistical model, the liberal advantage in faculty-student mentoring cannot possibly account for all of the observed difference in educational ambitions between liberals and conservatives.

Money, Creativity & Family Values

Although there has been little direct study on the role that ideology plays in decisions to pursue doctoral degrees, there is indirect evidence that ideological differences should relate to career choice. Ideological differences are, in part, a reflection of differences in personality traits and values. There is a growing field of research on the relationship between inherent personality traits and political dispositions. Early research revolved around the concept of an “authoritarian personality⁷.” According to the theory, authoritarian personalities are linked to conservative political ideology, exhibiting a high level of submission to authority and loyalty to existing

institutions and social conventions.⁸ On the contrary, Lichter and Rothman argue that the New Leftist ideologies show “tendencies toward rebellion... expressed through reactive opposition to social authority and identification with its opponents.”⁹

Beyond difference in response to authority, liberal and conservative ideologies reflect a number of competing values. According to Conover and Feldman, the core meaning of these ideological labels is focused on “change vs. the preservation of traditional values.”¹⁰ Whatever the basis of ideological identification, however, the differences between liberals and conservatives translate into differences in policy attitudes, behaviors, and dispositions, not all of which have direct political implications. For example, liberals and conservatives tend to differ on measures of the widely-used NEO Personality Inventory.¹¹ Liberals tend to score higher in creativity and excitement seeking, while conservatives outperform in orderliness and striving for achievement.¹²

It is reasonable to assume that these differences in personalities and values translate into differences in career goals. For example, if liberals and conservatives have different notions of authority, this would theoretically translate into liberals selecting careers that are less hierarchical and that allow greater personal autonomy. In fact, Lindholm argues that the need for autonomy, independence, and intellectual freedom is the most cited reason college professors give for choosing academic careers.¹³ These career goals would appear to be more commonly associated with liberal ideologies. Similarly, if liberals are more likely to value creativity, as Carney et al. suggests, they may be more likely to self-select into the arts and humanities, with the more practical conservatives opting for professional fields.¹⁴

Choice of a college major may itself direct students toward or away from further education. Students who choose college majors that translate easily into concrete, marketable

skills are less likely to go on to pursue a Ph.D. This tendency is no more evident than when comparing business students to those majoring in the humanities. For example, of the respondents who majored in philosophy, 39 percent indicated an interest in obtaining a Ph.D. (n=105) while only 5 percent of accounting majors (n=399) and 13 percent of computer science majors (n=100) had similar intentions. Overall, one in four students who majored in the natural sciences, the social sciences, or the humanities expressed an interest in obtaining a doctorate, as compared to 1 in 14 students in the professional majors (communications, law enforcement, marketing, finance, business administration, etc).

The causal direction of this relationship is still unclear. It may be the case that students select college majors depending on their inclination for graduate study; Those who are not inclined towards further education may look to acquire skills that are immediately marketable, whereas those inclined towards graduate study select fields that emphasize abstract reasoning and other less tangible skills. It may also be the case that students consider graduate school when their undergraduate degree fails to produce attractive employment opportunities. Whichever the case, it appears that conservatives are more likely to enter the professional fields, which generate less interest in graduate school.

Figure 6 illustrates just how significantly liberals and conservatives differ in their propensity to major in a professional field. Only 9 percent of the far left and 18 percent of liberals major in professional fields, as compared to 33 percent of conservatives and 37 percent of the far right. Since liberals already outnumber conservatives among college students, this tendency for conservatives to congregate in professional degree programs means that liberals outnumber conservatives two to one in the humanities and social sciences - fields most associated with doctoral degrees.

There is some question as to what the distribution of ideology across majors really means. Do conservatives generally enjoy the humanities and social sciences but allow practical considerations to push them into professional fields, or are these fields simply less appealing to them? Would conservatives find these courses more appealing if the faculty who taught them better represented their own viewpoints?

Figure 7 indicates that the choice of major is more than a practical consideration. Since students are often required to take general education courses across the curriculum, conservatives do get a taste of the humanities and social sciences. As figure 7 clearly illustrates, conservatives are less satisfied with their experiences in social science and humanities courses when compared to their liberal counterparts. In light of the fact that conservatives tend to have a more positive assessment of science and math courses, as well as the classes within their major, it is clear that their pockets of dissatisfaction are not simply the byproduct of a negative disposition. While it is difficult to know what precisely is driving their concerns, our own research on the effects of politics in the classroom may provide some important clues. Within political science courses, we found clear evidence that students who felt at odds with their professor's politics were generally more critical of the professor, the course, and the subject matter.¹⁵ Perhaps it should come as no surprise that conservatives tend to be less satisfied with their coursework in fields notoriously dominated by the political left.

The conservative propensity to seek professional degrees only tells part of the story. Even within a given field, conservatives are still less likely to express an interest in a doctoral degree. Among humanities majors, 19 percent of students to the right of center expressed an interest in pursuing a Ph.D., as compared to 30 percent of those to the left of center. The same pattern holds

within the social sciences, where 16 percent of those on the right expressed an interest in pursuing a Ph.D., as compared to 30 percent of those on the left.

Suspecting that fundamental differences between liberals and conservatives might contribute to the Left's dominance of academia, we compared student preferences on four issues associated with pursuing a Ph.D. The first factor, the importance given to raising a family, is a useful predictor of educational goals, since pursuing a doctorate usually involves postponing a family (or at least children) for four to six years. Statistically, those who see a family as a priority are less likely to express an interest in pursuing a doctorate. The second factor, the importance of writing original works, provides some indication of a student's desire to work in a creative environment. Students who indicate that writing original works is a priority are typically more interested in getting a Ph.D. The third factor, being well off financially, is an important predictor of seeking a doctorate for a number of reasons. The most prized Ph.D. students live a materially modest existence, enjoying university support for tuition, books, and a humble monthly stipend. However, many doctoral students spend their graduate years slowing descending into a mountain of debt. While the salaries associated with Ph.D. graduates may be attractive, the road to graduation is long and financially burdensome. Not surprisingly, students who place a high priority on being well off financially are less likely to express an interest in attaining a doctoral degree. The fourth factor, developing a meaningful philosophy of life, captures a segment of the student population that seems particularly enamored with the intellectual exercises so often associated with academics. Not surprisingly, students who place a premium on developing a meaningful life philosophy are more interested in pursuing a Ph.D. than their more practically-oriented counterparts. The final factor, a desire to make a theoretical contribution to science,

reveals a student's interest in research, which is the factor most closely associated with a desire to seek a Ph.D. (See Appendix A).

The results listed in figure 8 tell an important story. Unlike the previous figures, where the measurements hardly varied when moving from the far left to the far right, all but one of the personal priority measures indicate relatively sharp differences between liberals and conservatives. More significantly, all of the differences highlighted in figure 8 run in the same direction, discouraging conservatives from pursuing a doctoral degree. Conservatives are simultaneously more family oriented, less interested in writing original works, more focused on financial success, less interested in developing a meaningful philosophy of life,¹⁶ and less interested in making a theoretical contribution to science. It seems that, overall, the personal priorities of those on the left are more compatible with pursuing a Ph.D. Combined, these personal preferences seem to have a greater impact on conservatives' educational aspirations than any other factors in the statistical model.

The overall importance of money and family, combine with a tendency to seek out practical, professionally oriented degrees does suggest one important consequence of the findings. For many students, these underlying values are not likely to be the consequence of their collegiate experience, but rather, reflect differences between liberals and conservatives that occur as the result of early socialization and/or innate personality differences. There is some indication that, as it pertains to their interest in pursuing a doctoral degree, the difference between liberals and conservatives predates their college experience.

Figure 9 provides snapshots of students' interest in obtaining a doctorate taken at two different points in time. The gray line shows the comparative interest of students as they enter college, broken down by ideology. The black line denotes the intentions of the same individual

students four years later, as they are about to graduate. The results from the freshman survey indicate that, even before they begin their college career, those on the left are most likely to indicate interest in a doctoral degree. At the beginning of their first year, 26 percent of left-leaning respondents expressed an interest in pursuing a doctorate, compared with 15 percent of those on the right. Some four years later, the Left's advantage has grown. However, as figure 9 indicates, most of the increase is due to increasing interest among liberals, rather than to conservatives lowering their educational goals.

Conclusion

A lack of ideological diversity within academia is arguably a serious problem, especially in the social sciences and the humanities, where philosophical orientations may affect teaching and research. Yet, since the underlying cause is rather complex, there is no simple solution to the ideological imbalance that plagues much of academia.

The results in figure 8 confirm something that political scientists and social psychologists have long known: ideology represents far more than a collection of abstract political values. Liberalism is more closely associated with a desire for excitement, an interest in creative outlets, and an aversion to a structured work environment.¹⁷ Conservatives express greater interest in financial success and stronger desires to raise families. From this perspective, the ideological imbalance that permeates much of academia may be somewhat intractable. While there are steps that universities can take to narrow the ideological gap, it seems unlikely that any measures will achieve anything approaching ideological parity. Nevertheless, the results of our analysis do suggest two important ways (short of imposing ideological quotas) that universities may attract conservative students to doctoral programs.

First, in light of our prior research, which shows that students react negatively to overt partisanship, professors within the social sciences and the humanities should make a special effort to depoliticize their classroom.¹⁸ This does not suggest that political science or history courses should be bland or noncontroversial. Rather, striving to present both ideological perspectives on contemporary issues and debates would likely reduce the conservatives' relative dissatisfaction with their social science and humanities classes. If conservatives enjoyed these courses more, we might see a rise in conservative majors and in Ph.D. candidates.

Second, since conservatives place an especially high priority on financial security and raising a family, the academy needs to make efforts to adopt more family-friendly policies. As is, graduate school is not financially lucrative and pre-tenure faculty careers often leave little time for family. In fact, a significant number of academics report that they delay marriage, delay having a family, or have fewer children than they desire due to fears that family life will interfere with their career goals. Those who have children report that they feel pressure to hide family obligations and put in extra "face time" on campus because they fear that children will be used against them in the tenure and promotion process.¹⁹ The incompatibility between family life and academics is not imagined. One study shows that women who have babies early in their careers are less likely to receive tenure.²⁰ Given these demands, the career of an academic is not especially appealing to individuals who place a priority on "raising a family."

Universities should adopt a more family-friendly approach to recruiting both prospective doctoral students and young faculty. For prospective graduate students, this might include subsidized housing for married couples, health insurance for spouses and young children, and an open commitment to work with young parents whose academic progress will inevitably be constrained by family considerations. For young faculty, the option of suspending the tenure

clock to care for a newborn child would provide family-oriented conservatives the confidence that raising children will not jeopardize their academic career. Recently, several top universities have taken such measures. Princeton University increased support for graduate student parents, to include paid maternity leave, childcare benefits, and mortgage assistance.²¹ Other schools have taken serious efforts to accommodate the needs of junior faculty members by providing maternity leave and providing assistance for childcare.²² While these types of family-friendly policies are often designed to attract more women to academia, the data seems to suggest that they would also serve to make doctoral programs more attractive to conservative, family-oriented students. In fact, these programs would likely have the greatest effect on recruiting one of academia's least represented groups—conservative women.

Finally, although values and choice appear to provide the best explanation for why conservatives do not get doctorates, it is important to note that our model only explains a portion of the difference between liberal and conservative career aspirations. Even accounting for grades, mentoring, personal choice, and a host of other factors; ideology remains the second best predictor²³ of a student's intent to pursue a doctorate. While a host of concrete indicators (overall satisfaction with college experience, grade point average, contact with faculty, etc.) do not tend to support the assertion that conservatives are frequently the victims of discrimination, academia may create an environment that *appears* hostile to young conservatives. Just as academic institutions have, in the pursuit of racial and ethnic diversity, taken great care to foster a climate of tolerance, so too, academic programs might consider how their doctoral programs might be made more inviting to ideological conservatives. Ultimately, the academy's relevance is dependent on its ability to recruit and retain scholars from every intellectual tradition.

Figure 1

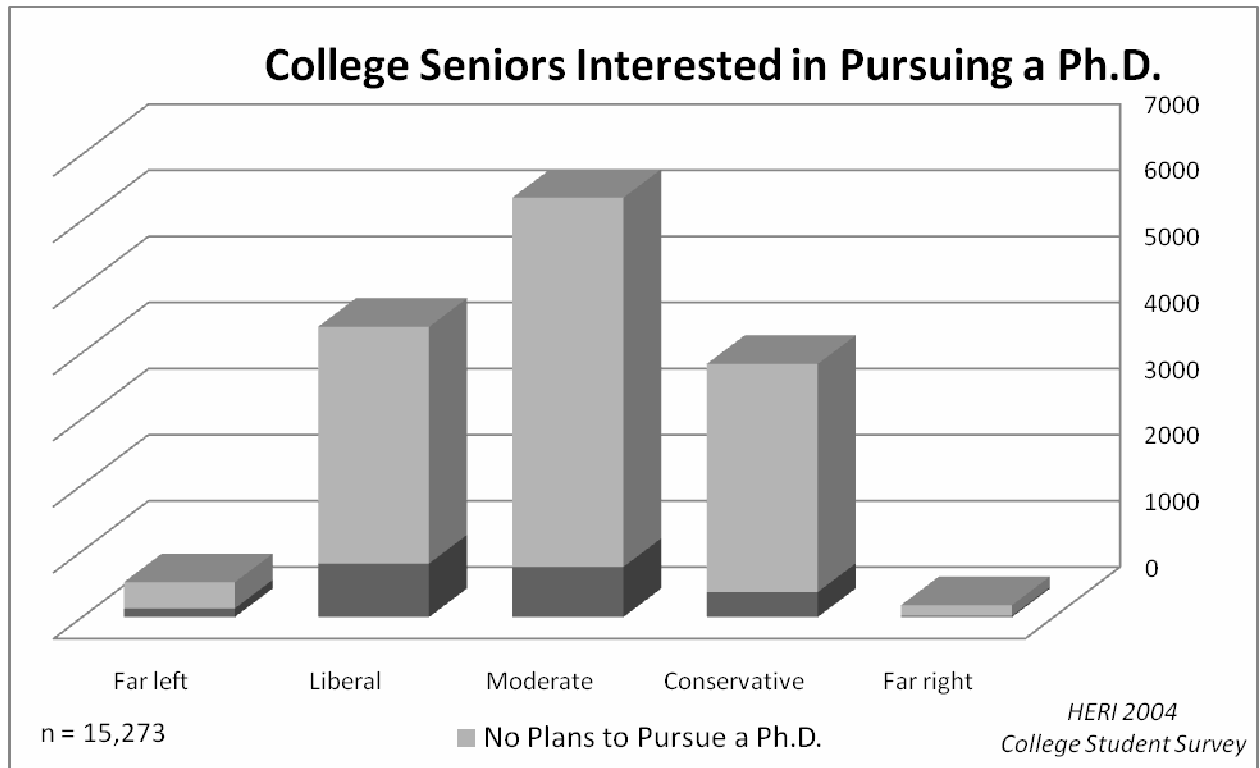


Figure 2

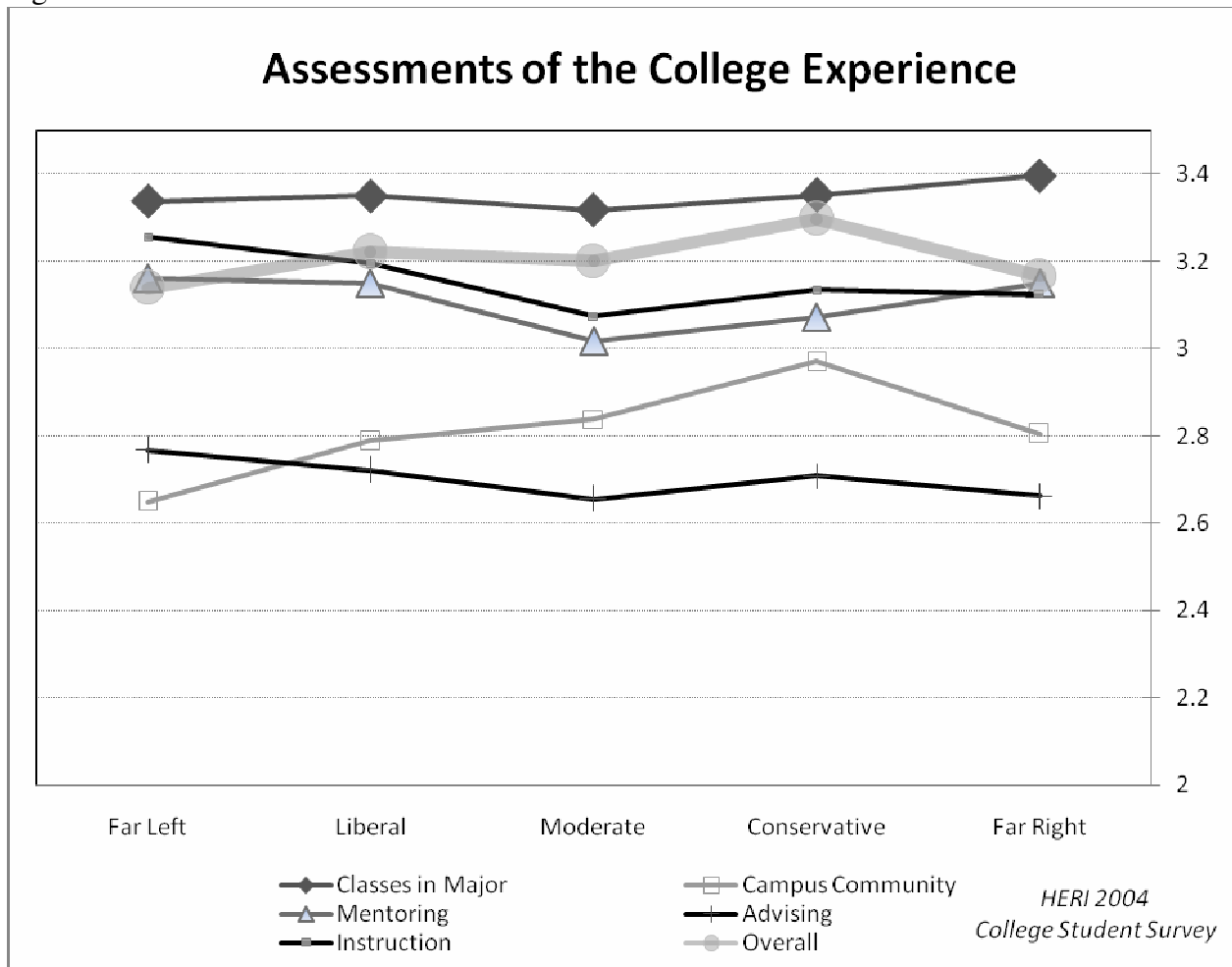
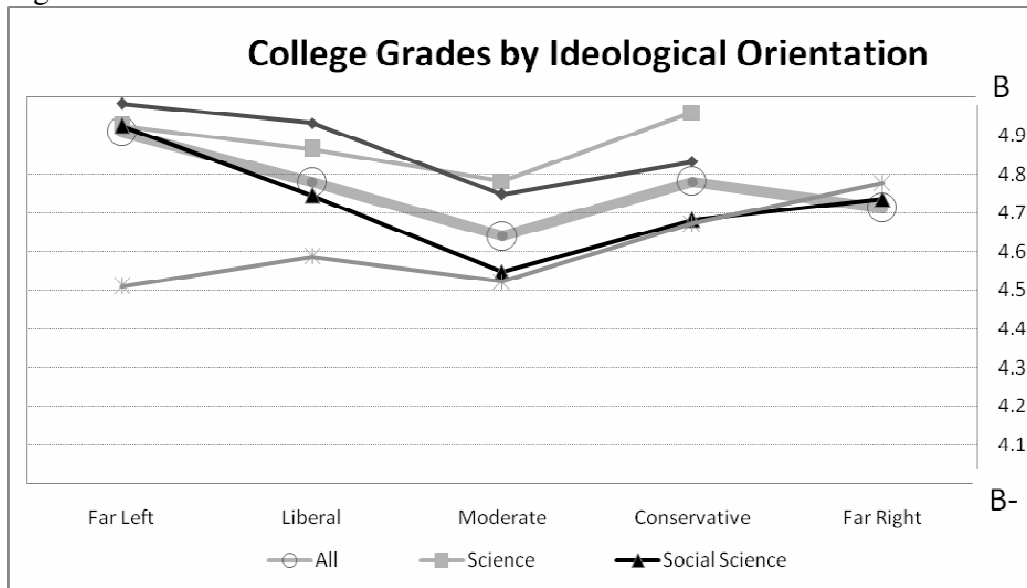


Figure 3



*HIERI 2004
College Student Survey*

Figure 4

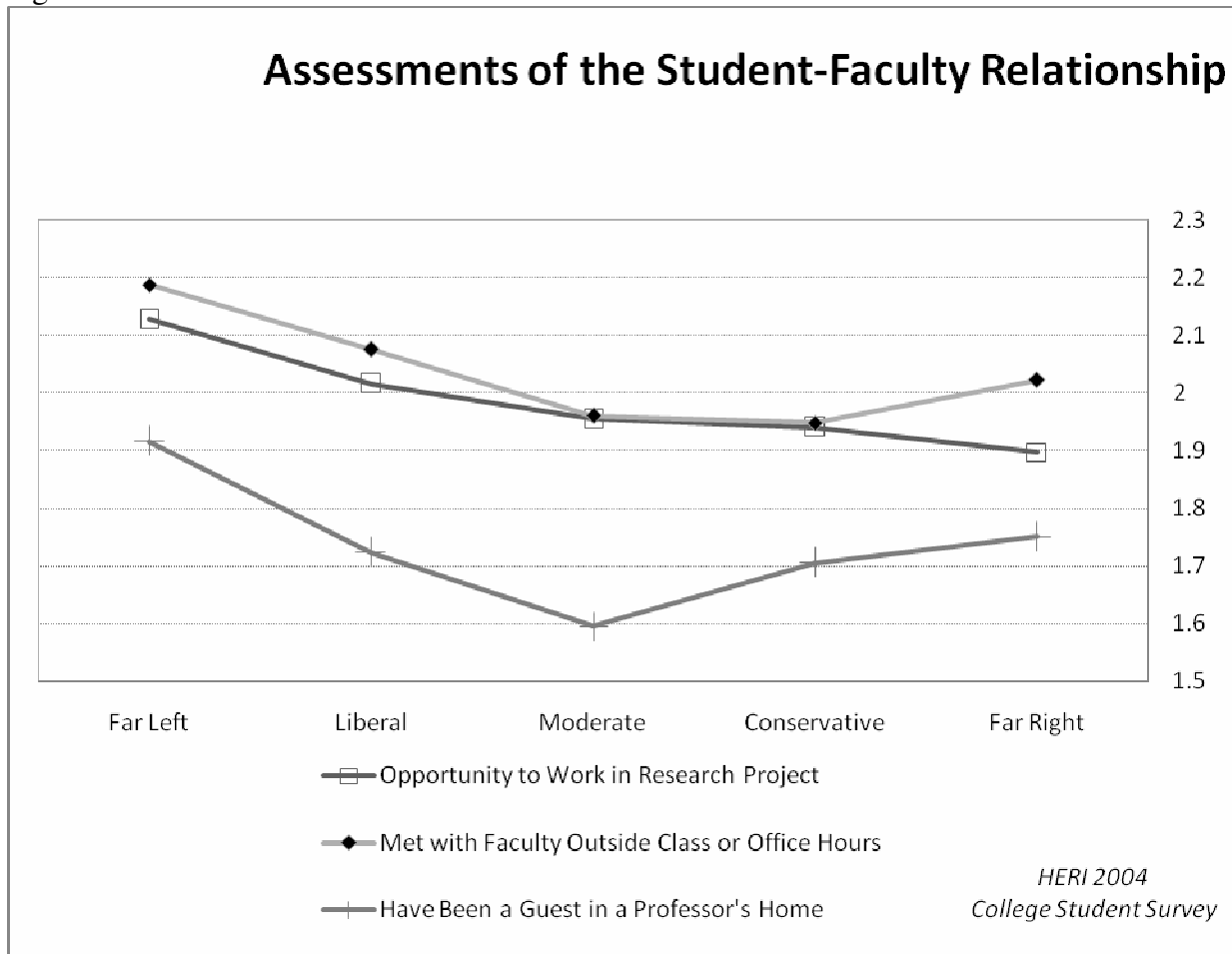


Figure 5

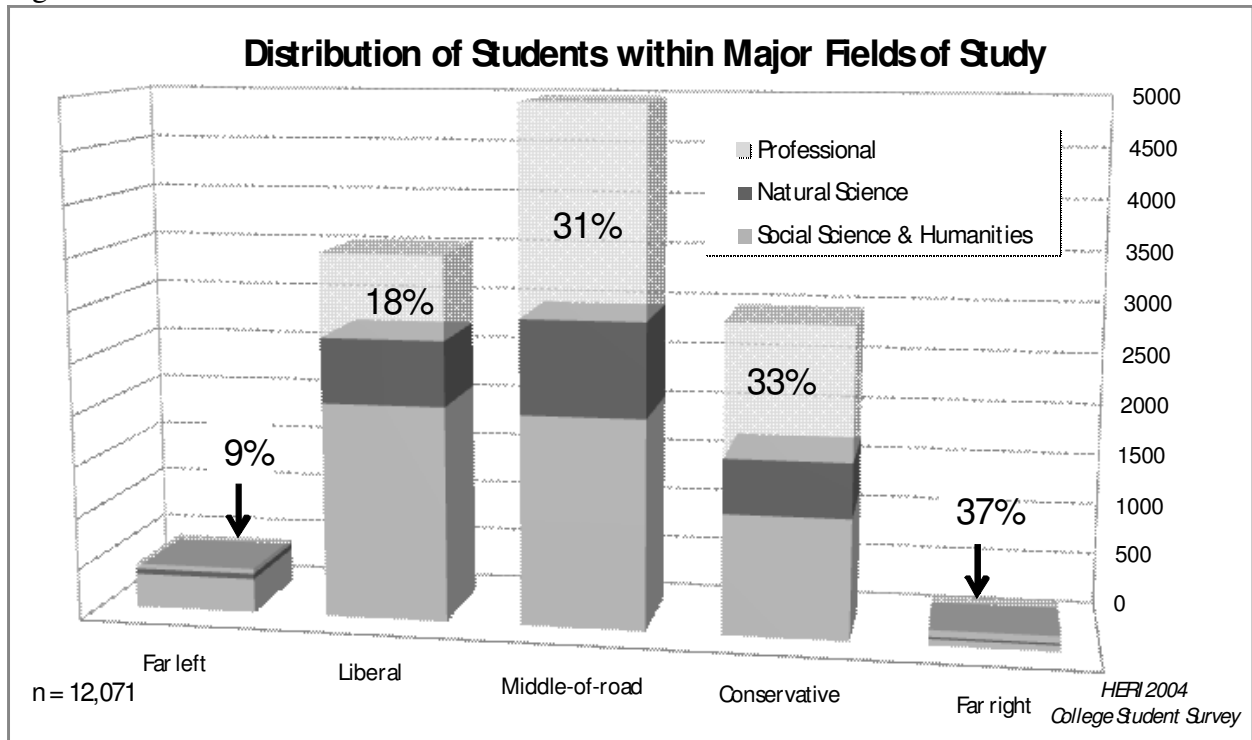


Figure 6

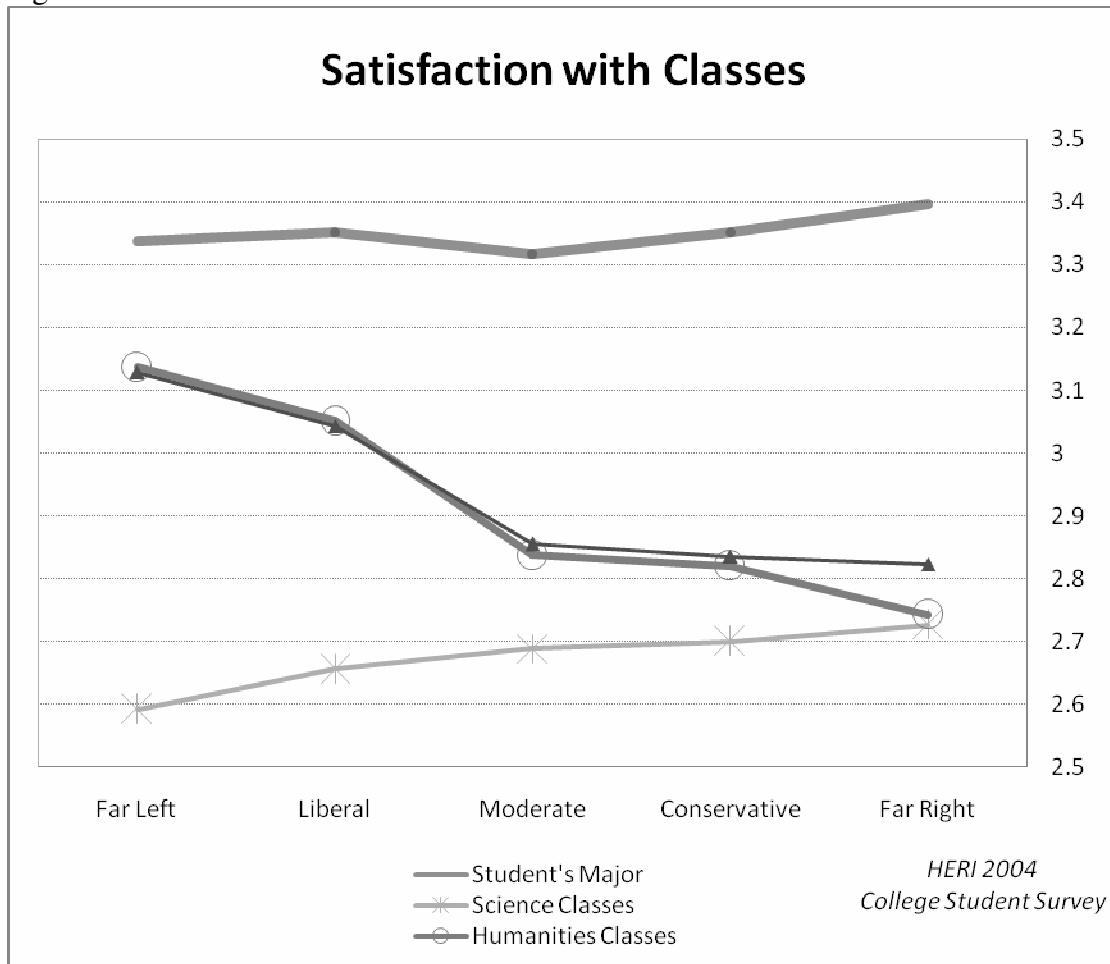


Figure 7

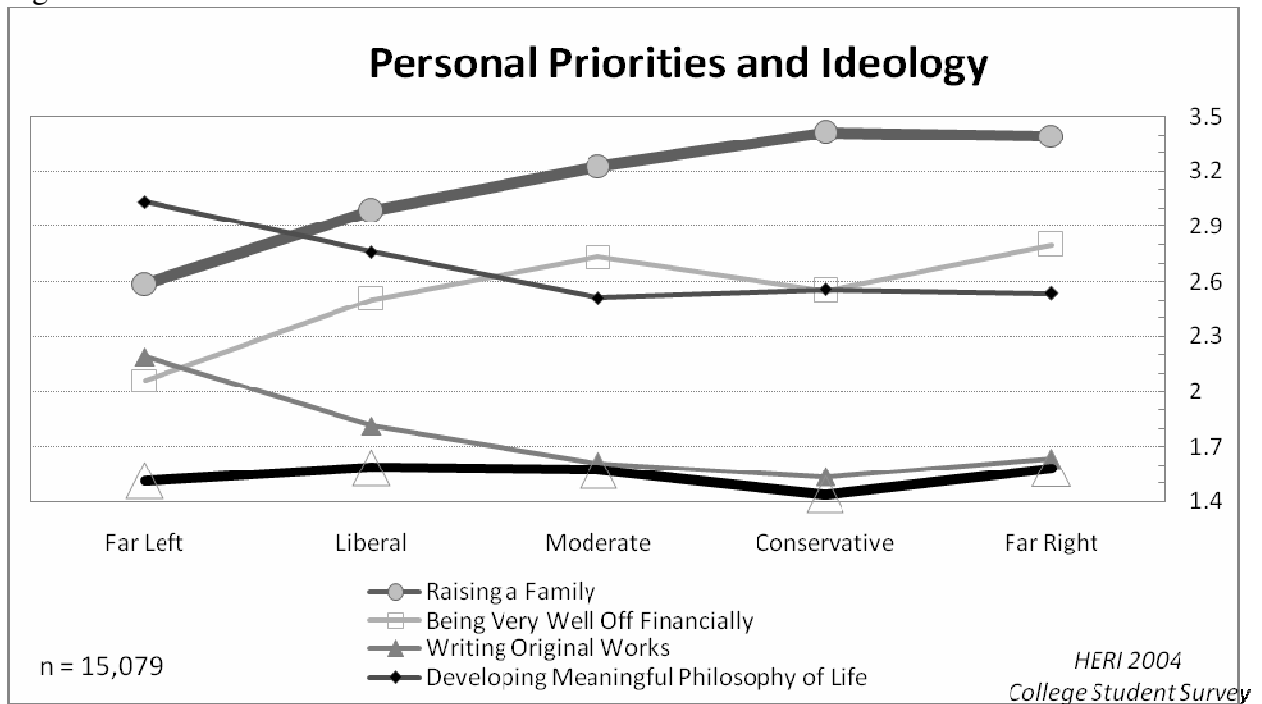
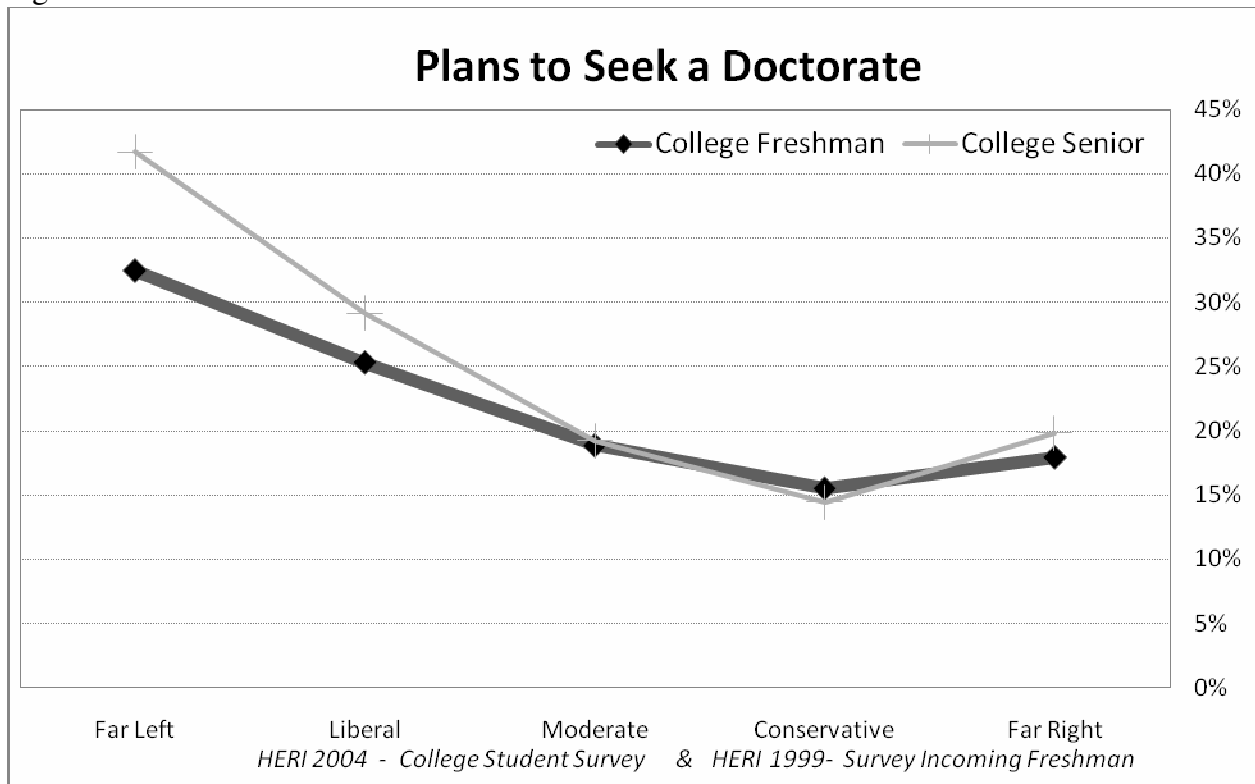


Figure 8



Appendix A: Main Regression Model Predicting College Seniors Seeking a Ph.D.

		Predictors (Listed in Order of Importance)	B	Standard Error	Std Beta	t-score	Sig
Statistically Significant		Making Theoretical Contrib. to Science	0.081	0.005	0.169	17.049	0.000
		Political Orientation in 2003	0.044	0.005	0.095	9.680	0.000
		Professional College Major?	-0.077	0.008	-0.092	-9.118	0.000
		Writing Original Works	0.034	0.004	0.080	7.887	0.000
		Average College Grade	0.031	0.004	0.071	7.136	0.000
		Opportunity to Work in Research Project	0.036	0.005	0.068	6.484	0.000
		Being Very Well Off Financially	-0.026	0.004	-0.062	-6.016	0.000
		Self-confidence (intellectual)	0.022	0.005	0.044	4.295	0.000
		Have Been a Guest in a Professor's Home	0.027	0.006	0.043	4.170	0.000
		Raising a Family	-0.018	0.004	-0.041	-4.211	0.000
		Met with Faculty Outside Class/Ofc Hrs	0.022	0.007	0.035	3.037	0.002
		Satisfied Overall	-0.019	0.006	-0.034	-2.998	0.003
		Developing Meaningful Philosophy of Life	0.010	0.004	0.027	2.608	0.009
		Met with Faculty During Office Hours	0.019	0.009	0.024	2.216	0.027
Not Significant		Satisfied Mentor	0.008	0.006	0.017	1.494	0.135
		Opportunity to Discuss Coursework Outside Class	0.011	0.007	0.017	1.525	0.127
		Becoming a Community Leader	-0.007	0.004	-0.016	-1.601	0.109
		Opportunity to Publish	-0.004	0.007	-0.006	-0.598	0.550
		Getting to Know Faculty	0.004	0.008	0.006	0.491	0.623
		Satisfied with Instruction	0.003	0.006	0.005	0.425	0.671
		Emotional Support & Encouragement	0.002	0.007	0.004	0.337	0.736
		Student's Sex	0.003	0.008	0.003	0.342	0.732
	(Constant)	-0.439	0.041		-10.656	0.000	

¹ See William E. Knox, Paul Lindsay, and Mary N. Kolb, "Higher Education, College Characteristics, and Student Experiences: Long-Term Effects on Educational Satisfaction and Perceptions," *The Journal of Higher Education* 63 (1992): 303-328.

² Rather unexpectedly, according to our research findings, the decision to pursue a Ph.D. is negatively correlated with overall satisfaction. Put simply, those who report a greater level of satisfaction with their college experience were less likely to express interest in earning a Ph.D. However, the difference in satisfaction between those who plan to attend graduate school and those who do not is relatively small.

³ In the HERI survey, "moderate" is literally referred to as being "middle-of-the-road."

⁴ Samru Erkut and Janice R. Mokros, "Professors as Models and Mentors for College Students." *American Educational Research Journal* 21 (1984): 399-417.

⁵ Robert Huckfeldt and John Sprague, *Citizens, Politics, and Social Communication: Information and Influence in an Election Campaign* (New York: Cambridge University Press, 1995); See also, Diana Mutz and Paul S. Martin, "Facilitating Communication across Lines of Political Difference: The Role of the Mass Media" *American Political Science Review* 95 (2001): 97-114.

⁶ Ernest Pascarella and Patrick Terenzini, "Patterns of Student-Faculty Informal Interaction beyond the Classroom and Voluntary Freshman Attrition," *The Journal of Higher Education* 48 (1977):540-552; Ernest Pascarella, Patrick Terenzini and James Hibel, "Student-Faculty Interaction Settings and Their Relationship to Predicted Academic Performance," *The Journal of Higher Education* 49 (1978):450-463; Ernest Pascarella, "Student-Faculty Informal Contact and College Outcomes," *Review of Educational Research* 50 (1980):545-595.

⁷ T.W. Adorno, Else Frenkel-Brunswick, Daniel Levinson, and R. Nevitt Sanford, *The Authoritarian Personality* (New York: Harper, 1950).

⁸ R.A. Altemeyer, *Right-Wing Authoritarianism*. (Winnipeg, Manitoba, Canada: University of Manitoba Press, 1981).

⁹ S. Robert Lichter and Stanley Rothman, "The Radical Personality: Social Psychological Correlates of New Left Ideology," *Political Behavior* 4 (1982):207-235.

¹⁰ Conover, Pamela Johnston and Stanley Feldman, "The Origins and Meaning of Liberal/Conservative Self-Identification," *American Journal of Political Science* 25 (1981):617-645.

¹¹ P. T. Costa Jr., & McCrae, R. R. "Normal personality assessment in clinical practice: The NEO Personality Inventory". *Psychological Assessment* 4 (1992): 5-13.

¹² D. Carney, J.T. Jost, S.D. Gosling, K. Niederhoffer, and J Potter, "The Secret Lives of Liberals and Conservatives: Personality Profiles, Interpersonal Styles, and the Things they Leave Behind," Manuscript submitted for publication. 2006. <http://www.wjh.harvard.edu/~dcarney/Carney,%20Jost,%20Gosling.pdf>

¹³ Jennifer A. Lindholm, "Pathways to the Professoriate: The Role of Self, Others, and Environment in Shaping Academic Career Aspirations," *The Journal of Higher Education* 75 (2002):603-635.

¹⁴ D. Carney, et. al. "Secret Lives of Liberals and Conservatives."

¹⁵ April Kelly-Woessner and Matthew Woessner, "My Professor is a Partisan Hack: How Perceptions of a Professor's Political Views Affect Student Course Evaluations." *PS: Political Science and Politics* 39, no. 3 (2006): 495-501; April Kelly-Woessner and Matthew Woessner, "Conflict in the Classroom: Considering the Effects of Partisan Difference on Political Education," Forthcoming, *Journal of Political Science Education*, (2008).

¹⁶ It is worth noting that moderates were consistently the least interested in developing a meaningful philosophy of life. While conservatives and the far right express a greater interest in this life pursuit, they are ultimately outdone by the liberals and the far left. Nearly 22% of conservatives and 33% of the far right felt developing a meaningful philosophy of life was essential. By contrast, 27% of liberals and 40% of the far left felt it was essential.

¹⁷ D. Carney, J.T. Jost, S.D. Gosling, K. Niederhoffer, and J Potter, "The Secret Lives of Liberals and Conservatives: Personality Profiles, Interpersonal Styles, and the Things they Leave Behind." Manuscript submitted for publication (2006). <http://www.wjh.harvard.edu/~dcarney/Carney,%20Jost,%20Gosling.pdf>

¹⁸ April Kelly-Woessner and Matthew Woessner, "My Professor is a Partisan Hack." See also, April Kelly-Woessner and Matthew Woessner, "Conflict in the Classroom."

¹⁹ Robert Drago, Carol Colbeck, Kai Dar Stauffer, Amy Pirretti, Kurt Burkum, Jennifer Fazioli, Gabriela Lazzaro, and Tara Habasevich, "The Avoidance of Bias Against Caregiving," *American Behavioral Scientist* 49, no. 2

(2006). See also Joan Williams, "Singing the Grad-School Baby Blues," *The Chronicle of Higher Education*, April 20, 2004.

²⁰ Mary Ann Mason, "Do Babies Matter? The Effect of Family Formation on the Life Long Careers of Women." *Academe* 88, no. 6 (2002).

²¹ Scott Jaschik, "Making Grad School 'Family Friendly,'" *InsideHigherEd.com*, April 4, 2007.
<http://www.insidehighered.com/news/2007/04/04/family/>.

²² Scott Jaschik, "The 'Family Friendly' Competition," *InsideHigherEd.com*, April 25, 2007.
<http://www.insidehighered.com/news/2007/04/25/family/>

²³ A desire to make a theoretical contribution to science is the best predictor of intent to pursue a Ph.D.