

University of Nevada, Reno

Getting A's in B-School:  
Do Conservatism and Conventional Ambition Predict Higher GPA?

A thesis submitted in partial fulfillment of  
the requirements for the degree of  
Master of Arts in Sociology

by

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## **Abstract**

Performance in higher education is driven by more than intelligence and effort. According to the Person-Environment fit literature, when individuals have similar values to the organizations they inhabit, they perform better. Moreover, the same literature claims that individuals' performance will also improve when their needs are well-satisfied by their environment. The present study draws on these aspects of Person-Environment fit to unite two lines of research on the subject of performance in college-level business courses. One line argues that conservative college students earn higher grades in business courses due to a match between their own values and those found in the business school curriculum. The other line argues that the apparent influence of students' political identification on their college outcomes is really driven by differences in ambitions. In other words, conservatives tend to have a higher desire to achieve goals related to the American Dream than liberals, which influences their success in business school and beyond. While the former line only speculates as to why conservatives earn higher grades in business, the latter only speculates that differences in students' ambitions have real-world implications. In an effort to unite these ideas, the present research evaluates whether conventional ambition mediates the effect of conservatism on GPA in business courses.

### **Dedication**

This master's thesis is dedicated to Bobbi Roberts. Right about the time that my peers were getting excited to start college, I had all but decided to travel a different path. However, she thought that was crazy and told me that if I'd just try it out, I'd have so much fun that I'd become a scholar. Well Bobbi, you were right.

### **Acknowledgements**

To begin, I would like to acknowledge Dr. Markus Kemmelmeier instrumental role in this thesis and my intellectual development. He was willing to incorporate me into his research endeavors when I was just an undergraduate without any significant track record, and since then, he has been mentoring me constantly for four years. His mentorship elevated my education from a good experience to an exceptional experience. Thank you, Markus. I would also like to acknowledge Dr. Clayton Peoples and Dr. David Johnson for their willingness to serve on my thesis committee and for the insightful contributions they made. Your comments helped me to improve this thesis and my academic writing in general. Thank you both. I would like to thank Dr. Colleen Murray for her comments on my thesis during her research methods course. Prior to taking her course, my thesis was just a rough idea, but through her course, my thesis improved greatly. Thank you, Colleen. To the other faculty in sociology who have mentored me, I would like to say my thanks. To Dr. Berch Berberoglu, Dr. Johnson Makoba, Dr. Marta Elliott, Dr. Mariah Evans, and Dr. Kjerstin Gruys, our collaborations and shared time have been vital for me as I make the transition from consumer to producer of social science. The time we've spent in the classroom, conducting research and simply discussing ideas together means a great deal to me and I thank you all for your guidance and mentorship.

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## Introduction

Education offers individuals the opportunity for social mobility. In a society in which advancement hinges on merit, improving one's human capital (i.e., one's productive skills and knowledge) is associated with increased income potential and upward social mobility (Blundell, Dearden, Meghir and Sianesi 1999; Brown and Corcoran 1997; Daymont and Andrisani 1984). Given that education, especially higher education, is the most important way in which people improve their human capital and increase their social mobility (Becker 1994; Blau and Duncan 1967), the most important educational decision people make is whether or not to attend college. Many positive outcomes including income potential, likelihood of getting and staying married, and overall life-satisfaction are improved for college graduates (Black and Sufi 2002; Raley and Bumpass 2003; Torr 2011). Research has also shown that for students who choose to attend college, attending a high-quality institution predicts better outcomes and higher social mobility compared to students who attended lower quality institutions (Brand and Halaby 2006). A final decision that students make in this regard is their choice of college major (Altonji, Kahn and Speer 2014; Carnevale, Cheah and Hanson 2015). By choosing to attend a good school and enter a prosperous major, students can greatly improve their social mobility relative to others.

Success in college, however, is not only a matter of being admitted to a university and enrolling in a major. To maximize their success and social mobility in life, students need to perform well academically. Academic performance in college is predicted by multiple factors, including intelligence (Coyle and Pillow 2008) and interest (Harackiewicz, Smith and Priniski 2016). Yet, other less meritorious and perhaps less

conspicuous factors might also be at play. According to the Person-Environment fit (P-E Fit) paradigm, academic performance might also be a function of students' values and life-ambitions.

### **Person-Environment Fit**

P-E Fit seeks to explain why people achieve more in environments that align closely with their own individual characteristics compared to other environments. P-E Fit encompasses a wide range of individual characteristics, from biological and cognitive traits, to ambitions and political values. Research on P-E Fit does not argue that individuals passively find fitting environments, but rather that they actively seek them out. The P-E Fit paradigm is typically applied to occupational settings (see Ostroff and Judge 2007, for a review) with much of the paradigm's foundation coming from Holland's (1997) work on personality and career selection. Yet, it applies equally to higher education. Research has shown that students choose majors which fit closely with their values (Feldman, Smart and Ethington 1999; Porter and Umbach 2006; Smart, Feldman and Ethington 2000), and that they earn better grades as a result (Kemmelmeyer, Danielson and Basten 2005). Within P-E Fit, a variety of types of fit exist, not all of which are relevant to values and education. Here, two types of P-E Fit, supplementary fit and complementary fit, are reviewed and used to guide hypotheses about the relationship between students' worldviews, life-ambitions, and performance in a specific, and less studied environment: business school.

### **Supplementary Fit**

Supplementary fit occurs when an individual and an organization have similar characteristics (Cable and Edwards 2004; Edwards and Shipp 2007; Muchinsky and

Monahan 1987). This is the case when individuals and organizations share micro-level preferences such as when the workday should begin, but it can also occur when values are shared. Much research on supplementary fit has focused on compatibility in terms of values, known as value congruence (Kristof 1996). Value congruence has been found to be a positive predictor of job selection (Cable and Judge 1996) and positive outcomes such as attitudes towards work and likelihood of staying in a job (Cable and Edwards 2004; Downey, et al. 1975; Edwards and Shipp 2007; Tziner 1987). Value congruence is relevant to the present study because it suggests that students who share values with business-related fields and business faculty will be more likely to major in a business field while, presumably, achieving higher grades compared to students with lower value congruence.

### **Supplementary Fit in Business School: Political Value Congruence**

Which students will experience value congruence in business school hinges on the values that are common to business schools. Within the context of a capitalist market economy, business schools tend to prepare students to become successful participants such a system. Although this is necessarily a broad generalization, U.S. business schools as institutions embrace the values of capitalism, which include competition, risk-taking and compensation based on one's productivity. Correspondingly, productive, skilled individuals are deserving of greater rewards than those with lower skills and lesser productivity, with each individual being motivated by their own "pursuit of happiness." Thus, it is not surprising that students in economics and business are more self-interested than students in other fields of study, and become more so as they progress (Frank et al. 1993). More poignantly, Ehrensals (2002) argued that a central goal of U.S. undergraduate

business programs is a socialization toward embracing the logic of capitalism's inherent economic hierarchy.

Such justifications of social and economic inequality have been linked to political conservatism (Jost et al. 2003), suggesting that conservatism implies the acceptance of inequality as a status quo. The association between conservatism and legitimization of inequality is relevant to business school, among other things, because research has shown that there are differences in American university professors' political views depending on their academic discipline. According to Gross and Simmons (2014), the American professoriate is far more liberal than it is conservative, but business schools "buck the trend." These authors found that business schools have more conservative professors than any other area, and have the second lowest percentage of liberal professors. Their analysis shows that business schools also harbor the most registered Republicans of any departments across campus. The authors claim that many departments in the academy attract scholars who are focused on critically examining reality, whereas business is more focused on "practical and technical" inquiries (p. 8). When professors approve of the social system they are less inclined to criticize it, instead opting to focus on research that has applications within the prevailing economic system, such as developing new management strategies or marketing techniques.

With respect to students, research has demonstrated a strong association between having conservative values and majoring in a business field (Bartlett, Ferber and Green 2009; Feldman and Newcomb 1969; Gage, Zick, Tully and Simon 2010). Such conservative-leaning students can be expected to be more tolerant toward economic inequality than their liberal-leaning peers. Some researchers argue that the reason

students in some fields of study espouse more liberal views, while students in other fields espouse more conservative views, is because over time they are socialized into a particular way of thinking by their courses and professors (Feldman and Newcomb 1969; Guimond and Palmer 1990; Guimond and Palmer 1996a, 1996b). Yet, other evidence supports the idea that selection effects play an important role in determining who joins which kind of academic environment (Feldman and Newcomb 1969; Hodgkinson and Innes 2001). The fact that students entering business school tend to have conservative values coupled with evidence that they are immersed in a status quo-reaffirming educational setting suggests that conservative students experience value congruence, with known implications for their academic performance. Likewise, to the extent that the business field as a whole attracts like-minded students, the same conservative students are likely to experience value congruence with their peers. In other words, students who experience value congruence are more likely to join business schools, and are more likely to succeed as a function of it. Yet, those who do not experience value congruence are less likely to join, and, if they have joined, are more likely to leave to pursue an alternative path.

### **Complementary Fit**

As important to the present study as supplementary fit is complementary fit. Complementary fit occurs when individuals and organizations offer each other something that the other needs (Cable and Edwards 2004; Edwards and Shipp 2007; Muchinsky and Monahan 1987). Complementary fit has been discussed in terms of individuals satisfying an organization's needs (Muchinsky and Monahan 1987), and in terms of an organization satisfying an individual's needs (Kristof 1996). The latter form, referred to as needs-

supplies fit (Edwards and Shipp 2007), is focal to the proposed research. Suggested to be the most important type of fit for individuals (Cable and DeRue 2002), achieving needs-supplies fit is a primary motivator for people to join organizations. This type of fit has been linked to positive outcomes and performance on its own and as a mediator (Cable and Edwards 2004; Edwards and Shipp 2007; Harrison 1978). In addition to mediating other forms of complementary fit, needs-supplies fit has partially mediated value congruence (Cable and Edwards 2004). Needs-supplies fit is important to the proposed research because students should study things that satisfy their needs and perform better in the classroom when their needs are being met. Needs-supplies fit should also mediate the relationship of value congruence and academic performance.

### **Complementary Fit in Business School: Satisfying Ambitions**

Even though conservative students should be more compatible with the ethos of business schools than is the case for the average student, the individual needs and aspirations of students can vary widely. The proposed research focuses on the needs that many students try to satisfy through education, namely life-ambitions. With education, people can drastically improve their chances of achieving what they want in life. Of course, people's ambitions do not exist in a vacuum. Rather, a person's values have been shown to influence the ambitions they set (Edwards and Shipp 2007). In the context of higher education, Woessner and Kelly-Woessner (2009) demonstrated that conservative students tend to have a greater desire to be financially successful and to have administrative responsibility. The authors argue that conservative students are more likely to major in business fields because these students view business as a logical path to achieving these ambitions. Much like the argument that business fields are more

conservative and more focused on practicality (Gross and Simmons 2014), Woessner and Kelly-Woessner (2009) have connected conservatism to conventional life-ambitions and to taking practical educational paths to achieve them. These goals are also possibly a function of the link between conservatism and justifying existing social hierarchies. Like business faculty's proclivity for practical research that does not criticize society as aggressively unlike some other departments, it is possible that conservative students tend to approve of the social system which leads them to set goals that conform to the system.

Up until this point, the definition of conventional ambition has only been implied. In the present study, the desires to be successful in one's own business, to be financially well off, and to occupy a leadership role are argued to approximate values commonly associated with the "American Dream." According to Dries (2011) the American Dream reflects cultural values that individuals' success in life is largely determined by how much wealth they earn. Moreover, it is founded on the assumption that the existing social hierarchy rewards hard work and competence, and is therefore legitimate. These assumptions about society are what make the American Dream and the conventional ambition scale interesting for the present research. Any discovery of a positive relationship between conservatism and conventional ambition-setting would suggest that conservatives are not only accepting of the status quo but also set goals that reaffirm inequality, at least in some forms. Furthermore, any discovery of a relationship between conventional ambition and performance in education could reveal a mechanism by which dominant social ideologies are maintained. In other words, if conventional ambition leads to better grades, and better grades shape students' career outcomes, then conventional thinking might help people obtain positions of power and prestige.

### **Rationale of the Proposed Research**

This study extends previous work by linking both political identification and academic success to students' life-ambitions, which may mediate the previously documented relationship. Woessner and Kelly-Woessner (2009) suggested that conservative students tend to have higher levels of conventional ambition compared to liberal students, and Kimmelmeier et al. (2005) found a positive relationship between conservative values and academic performance in business courses. However, no study has yet explored this nexus of ambitions, political views and GPA with the same model. This is crucial, because the relationship reported by Kimmelmeier et al. (2005) lacks an "active ingredient." Likewise, the relationship Woessner and Kelly-Woessner (2009) found only implies that conservatives' ambitions shape real-world outcomes; it does not explicitly demonstrate it. By linking these two perspectives together, I can evaluate whether the known relationship between conservatism and ambitions predicts a socially important outcome: college GPA (see Figure 1).

The present study also makes contributions to the literature on P-E Fit. Few tests that employ needs-fulfillment as a mediator of value congruence and outcomes exist. One notable example is Cable and Edwards (2004), who demonstrated support for the idea that needs-fulfillment should mediate value congruence and outcomes in a vocational setting. Their research was based on the idea that organizations' values determine the rewards they offer to members, and the values employees hold shapes the rewards that they seek. They hypothesized that needs-supplies fit should mediate the relationship between value congruence and employees' intent to stay, job satisfaction, and organizational identification. The present research provides an opportunity to retest

whether needs-supplies fit mediates value congruence in a different context, with a performance-related dependent variable.

Using survey and institutional (transcript) data from business undergraduates at a large American university, the proposed research investigates the relationship between business students' political views, life- and career-ambitions, and academic performance in business courses. The proposed research tests if self-ratings of conservatism predict higher GPA in business courses, given that conservatives should experience greater P-E Fit (see also Kimmelmeier et al. 2005). Given that needs-supplies fit has been suggested to mediate value congruence and outcomes, conventional ambition should mediate the relationship between conservatism and business GPA (Cable and Edwards 2004; Edwards and Shipp 2007; Harrison 1978). The proposed research evaluates whether conservatives who have a strong desire for conventional achievement earn the best grades in business courses.

#### **Cases for comparison: Other fields of study and other life-ambitions**

Although students in business administration take a large number of business courses, all students take courses outside of their major, often in order to fulfill requirements of a core curriculum. This affords me the opportunity to examine within-student differences in performance from one academic discipline to the next. The notion of P-E fit rests on the idea that certain individual characteristics are more advantageous in some environments but not others. This implies that to demonstrate any advantage of conventional ambition in business, I must also demonstrate that it is not as advantageous in other fields. Conversely, individual ambitions that will serve individuals well in fields other than business may not have the same implications in business.

Past research has attempted to make comparisons similar to those in the present study. Kimmelmeier et al. (2005) applied Social Dominance Theory to classify some fields as Hierarchy-Attenuating (HA) and others as Hierarchy-Enhancing (HE) (see Sidanius and Pratto 1999). HA fields tend to endorse social justice and advocate for equality, while HE fields tend to reaffirm existing social inequality. Because different fields are related to different values, the effects of conservatism were hypothesized to vary across them. In HE fields like business, conservatism predicted higher grades, but in HA environments like gender studies, conservatism did not predict higher or lower performance.

Equally important to the present study as the environment in which students are taking courses are their aims for their lives. The different kinds of ambitions included in the present study include political influence ambition, scientific ambition, artistic ambition, and social justice ambition. When students experience a high level of fit between their life-ambitions and an area of study, the notion of P-E fit allows one to predict that they will perform better. Conventionally oriented students are predicted to perform better in fields like business which offer students skills and knowledge to facilitate their ambition. It is also possible that conventionally oriented students do well in fields like engineering, which is also a practical choice for students who want a lucrative career. However, students who lack fit between their ambitions and a field of study should not perform well. For instance, scientifically oriented students likely do not experience fit in performing arts classes, and neither should social-justice oriented students in business.

The great exception to these comparative cases might be the academic discipline

of economics. Economics occupies a special place within the social and behavioral sciences in that it is typically far more HE and often associated with economically conservative (as opposed to socially conservative) values such as support for the free market, something that is evidenced by the field's preference for rational choice models. Economics can be left-leaning, but most of the faculty in economics departments are more right-leaning (Gross and Simmons 2014). In this sense, economics is similar to business, differing largely in that it is more theoretical and abstract as opposed to applied and practical. It is possible that economics provides supplementary fit to conservative students, but less complementary fit to conventionally oriented students than business. Economics' top students are possibly conservatives with high levels of scientific ambition.

Regardless of how conservatism and ambitions fit with different fields, it is critical to model differences in the average grades of fields. Grove and Wasserman (2004) demonstrated stark differences in average GPA between different fields, and that these differences persisted from the first semester to the last semester. By isolating like fields into their own categories, my comparisons account for the fact that students complete courses with varying average GPAs.

### **Hypotheses**

The present hypotheses pertain primarily to conventional ambition and academic performance in business. However, to the extent that fields share certain similarities with business, I would expect broadly similar results.

**H<sub>1</sub>:** Student conservatism predicts higher levels of conventional ambition, but not other life-ambitions.

**H<sub>2</sub>:** Student conservatism predicts higher GPA in business courses, but not higher GPA in other fields of study.

**H<sub>3</sub>:** Undergraduates' level of conventional ambition positively predicts higher GPA in business courses, but not in non-business courses.

**H<sub>4</sub>:** The relationship between conservatism and business GPA in such courses is positively mediated by their level of conventional ambition.

### **Method**

This study relies on cross sectional survey data and institutional (i.e. transcript) data collected between 1997 and 2001, from students at a large, public university in the American Midwest. Students completed the survey as they entered college in the fall of 1997, as part of a multi-university research project by Higher Education Research Institute (HERI). The institutional data was collected each semester via official transcript records that students consensually provided access to.

### **Participants**

The present study includes data from undergraduate students who entered university in the fall of 1997. All incoming students who attended the university orientation session prior to their first semester ( $N = 5,534$ ) were asked to participate in this survey, and roughly 89% agreed. These students were then asked to grant the researchers permission to access their academic record while they are a student at the institution. Roughly 85% did provide written permission, and provided their student identification number. Once they attended the university, students' survey data were matched with their institutional records. Students who had participated in the orientation, but had never enrolled, were not included.

In order to be included in the final sample, students were required to have completed at least two courses to be included in the dataset and have no missing values on critical predictor variables. The final sample comprised 3,782 students.

## **Materials**

**Categorization of Fields of Study:** The study does not include a single business field, but rather many that fall under the umbrella of business. The fields that are coded as business fields are accounting, Business, Computer Information Systems, Corporate Strategy, International Business, Entrepreneurship, Finance, International Business, Marketing Organizational Behavior-Human Resources Management, Operations Management and Statistics and Management Science. Economics was evaluated as its own category. A total of 12 other groups of academic disciplines were created, including mathematics, life sciences, physical sciences, engineering, social sciences, sports sciences, education, humanities, performing arts, fine arts, and music. See Appendix C for the complete list of fields in each group.

**Political identification:** Student's political identification is measured with a single, ordinal rating scale with five possible responses ranging from "very liberal" to "very conservative" (See Appendix A).

## **Ambition Scales**

Five distinct varieties of life-ambitions are incorporated into the present study: Conventional ambition, political influence ambition, scientific ambition, artistic ambition, and social justice ambition. These scales were created based on an exploratory factor analysis and conceptual connections between items, and their internal consistency was confirmed using Cronbach's alpha. Details of each scale are included in Appendix B.

**Conventional Ambition Scale:** Students' desire for conventional success is represented by what I call the "conventional ambition scale." This scale is a three-item scale ranging from 1 (*not important*) to 4 (*essential*). Two items address success in business and finance and a third item addresses interest in having a family. These three items are conceptually linked (Woessner and Kelly-Woessner 2009) and internally consistent in the current sample ( $\alpha = .63$ ).

**Political Influence Ambition Scale:** Students' desire for political influence is represented by what I call the "political influence ambition scale." This scale is a four-item scale ranging from 1 (*not important*) to 4 (*essential*). Items range from influencing social values and political structures to being a leader in the community. These items are internally consistent in the current sample ( $\alpha = .77$ ).

**Artistic Ambition Scale:** Students' desire for artistic achievements is represented by what I call the "artistic ambition scale." This scale is a three-item additive scale ranging from 1 (*not important*) to 4 (*essential*). Items cover topics from achieving in performing arts to writing original works. These items are internally consistent in the current sample ( $\alpha = .64$ ).

**Scientific Ambition Scale:** Students' desire for scientific success is represented by what I call the "scientific ambition scale." This scale is a three-item additive scale ranging from 1 (*not important*) to 4 (*essential*). Items represent making theoretical discoveries, becoming a leader in one's field and obtaining recognition from colleagues. These items are internally consistent in the current sample ( $\alpha = .60$ ).

**Social Justice Ambition Scale:** Students' desire for conventional success is represented by what I call the "social justice ambition scale." This scale is a four-item

additive scale ranging from 1 (*not important*) to 4 (*essential*). Items related to helping others, the environment and race relations are included. These items are internally consistent in the current sample ( $\alpha = .73$ ). It should be noted that, though face valid, this scale is not a formally validated scale (see Appendix B).

**Academic Performance:** The central outcome variable in the present study is students' grades measured at the course-type level. That is to say, the outcome variable is really thirteen variables, each one a GPA in a different type of academic discipline. For example, one GPA is students' overall GPA in business courses, whereas another is students' overall GPA in the humanities.

### **Analysis**

To test Hypothesis 1, I regress each of the life-ambition scales on political identification, controlling for relevant influences. If this hypothesis is supported, the coefficient on political identification is most positive and significant in the model where it is regressed on conventional ambition.

To test Hypothesis 2, I regress students' self-description of their political orientation on their overall GPA, and then on each field-specific GPA. If I find support for this hypothesis, the coefficient of political orientation is only statistically significant in the model where the dependent variable is students' business GPA.

To test Hypothesis 3, I regress students' scores on each life-ambition scale on their overall GPA, and on each field-specific GPA. If I find support for this hypothesis, the effect of conventional ambition is only statistically significant in the model where the dependent variable is students' business GPA.

Finally, to test Hypothesis 4, I use a mediation model that incorporates multilevel

techniques. If I find support for this hypothesis, the indirect effect of conservatism on business and economics course grades through the path of conventional ambition will be significant and positive (a positive coefficient of conservatism on conventional ambition multiplied by a positive coefficient of conventional ambition on grades). Given the structure of the data, I employ a cross-classified multilevel model (e.g., Heck, Thomas and Tabata 2014). Analyzing the present data comes with two major challenges. First, the central interest is on differences between students. I wanted to determine differences between students based on the grades they received in their courses. The challenge in this regard is that each student took multiple courses, meaning that the grades students received in their courses are non-independent. Put simply, I assume that two randomly selected grades from the same student are likely more similar than two randomly selected grades from two different students. As a result, the assumption of independence of observations--a critical assumption for many statistical techniques--is violated. I model this statistical interdependence using a random effect, with grades being nested within students.

Similarly, courses are also attended by multiple students, meaning that courses are also a source of interdependence in the data. That is, students take many different courses, but for each course, many other students also enroll. Because students in the same course are exposed to the same instructor, grading standards, and other specific course requirements etc. it is very likely that that their grades are at least somewhat similar to one another. The implication is that the course grades of two ideologically dissimilar students might be more similar in courses in which they are both enrolled, than they are in different courses. Hence, my analysis has to ensure that any comparison of

students based on the courses that they take is not contaminated by the enrollment in the same course. Again, I use a random effect to model that the grades of individual students are also nested within courses.

Cross-classified models (e.g., Heck, Thomas and Tabata 2014) can account for the fact that not all courses are nested within the same student and not all students are nested within the same courses by modeling a random effect for each of these grouping variables. This amounts to the following equation:

$$y_i(jk) = \beta_0 + \beta_{1oi}(jk) + \beta_{2oi}(jk) + \beta_{3oj} + \beta_{4ok} + u_{oj} + u_{ok} + e_{oi}(jk)$$

In this equation,  $\beta_0$  refers to the grand mean of students' grades,  $\beta_{1oi}(jk)$  refers to the individual-level covariate of political orientation,  $\beta_{2oi}(jk)$  refers to the individual-level effect of level of conventional ambition,  $\beta_{3oj}$  refers to the effect of courses being nested within students, and  $\beta_{4ok}$  refers to the effect of students being nested within courses. Next, there are two random effects, one for courses,  $u_{oj}$ , the other for students,  $u_{ok}$ . Finally, there is an error term for individuals,  $e_{oi}(jk)$ . In the context of this type of multilevel model, I examine the hypothesized mediation (e.g., Zhang et al. 2009).

## Results

The purpose of the present study was to investigate the effects of political identification on GPA in college courses. The present study also investigated the potential mediating effects of different life-ambitions on the relationship between political identification. To generate these models, R version 3.5.1 and Mplus version 7.3 were employed. Most analyses were carried out in R, though R does not produce the specific type of mediation model in the context of a cross-classified data structure. Mplus

is able to do so, and for that reason was used for the mediation analyses. In all models, I controlled for age, race, sex, school year, SAT, high school GPA, financial concern and whether the student was a native-English speaker or not.

### **Predicting ambitions from political identification**

To test Hypothesis 1 that conservatism predicts conventional ambition, I examined the link between political identification and the five ambition variables, multiple regression modeling was employed. Table 2 summarizes the results.

The effects of political identification on ambitions were varied. Conservatism predicted higher conventional ambition,  $b = .09, p < .001$ , suggesting that more conservative students are more interested in pursuing financial and administrative success. In terms of desire for impacting the political system, political identification predicted lower levels of this ambition,  $b = -.04, p < .001$ , suggesting that as conservatism increases, students had a lower desire to be involved in political change. Ambition to achieve highly in the arts was significantly predicted by lower levels of conservatism,  $b = -.13, p < .001$ . A similar pattern emerged with respect to scientific ambition such that more conservative students were less interested in scientific endeavors,  $b = -.03, p < .01$ . Finally, results show that conservatism predicts a lower level of interest in pursuing goals related to social justice,  $b = -.13, p < .01$ , suggesting that, as students become more conservative, they are less likely to be interested in ambitions such as improving race relations in the United States. Overall, the data lend strong support for Hypothesis 1, that higher levels of conservatism predict only higher levels of conventional ambition.

### **Predicting academic success from political identification**

To test for the hypothesized effect of conservatism on GPA, a cross-classified

multilevel regression model was employed to accommodate the present data structure. In the present data, students are nested within courses, such that multiple students completed English 101, for example. However, courses are also nested within students because each student took more than one course at the university. To account for this interdependence, the model included random intercept for the different courses students attended, as well as a random intercept as for different courses. More specifically, variance within courses and students needed to be accounted for. Courses systematically differ from one another in difficulty, and therefore average grade level. The same is true with respect to students as they are systematically different from each other in terms of their average grades, potentially indicating difference in cognitive ability or effort in college. This means that the grades in two courses for any one student are likely to be more similar than the grades in two courses from two students. Also critical to the prediction was to differentiate success in different academic fields. This was modeled using 13 dummy variables with mathematics being the reference (see appendix C for details).

The first model I implemented to predict students' overall GPA from their political identification included individual-level and course-level controls, but strategic excluded the five ambition variables. In Model 1, the coefficient of political identification on the overall GPA was positive, but failed to reach conventional statistical significance. However, in Model 2, I included the five ambition variables and the effect of political identification emerged as significant,  $b = .02, p < .05$ . This improvement in the model was demonstrated by a decrease in the Akaike Information Criterion (AIC) from 188,473.4 in Model 1 to 179,829.8 in Model 2; this also occurred for Schwartz's Bayesian Information Criterion (BIC), which dropped from 188,985.2 to 180,377.7,

respectively (with smaller information criteria scores indicating better model fit, see Table 3). The positive effect of conservatism on overall GPA was not hypothesized. This is surprising because my original prediction was that ambitions would mediate the effect of conservatism on GPA, implying that the coefficient for conservatism in Model 1 would be greater, not smaller, than in Model 2. In terms of the effect of conservatism on field-specific GPAs, no significant findings emerged (see Table 4 for full list for regression coefficients). However, this is still important to the present research because it suggests conservatism is not predictive of academic success, even in the environment of business school and its close relative, economics.

Another critical observation is that conservatives did not perform any worse in fields of study that are stereotypically associated with liberal values, such as education, the humanities and the social sciences. These null findings do not support various concerns related to grading biases against conservative students in these fields. Overall, results suggest that political value congruence or the lack thereof might not have a major impact on college success.

### **Predicting academic success from life-ambitions**

Some of the ambition variables were strong predictors of overall college GPA. First, social justice ambition predicted higher GPA,  $b = .04, p < .01$ . This finding suggests that students who are social-justice oriented are more academically motivated, or that they are enrolled in easier courses which facilitates their higher average GPA. The other strong predictor is conventional ambition. This variable predicted lower GPA,  $b = -.04, p < .01$ , suggesting that students with high conventional ambition are not as successful as other students. It also could indicate that conventionally minded students

are enrolled in relatively more challenging courses. For details, see Model 2 in Table 3.

In terms of the effects of life-ambitions on field-specific GPA, several patterns were documented. Given the large number of effects, not all will be reviewed, but a full breakdown can be found in Table 5. Most pertinent to the present research, conventional ambition was neither a significant predictor of business GPA,  $b = .002, p < .10$ , nor of economics GPA,  $b = -.017, p < .10$ . These results suggest that conventionally oriented students may not experience the anticipated benefits of fit with business and economics. Somewhat surprisingly, conventional ambition also predicted lower scores in mathematics, life sciences, and engineering, and were not predictive of success in the physical sciences. These fields are often thought to provide a clear path to strong career paths, and are generally not under suspicion for harboring any type of political biases.

#### **Ambitions as mediators of political identification and academic success**

However, a mediational relationship can only be established conclusively by analyzing the indirect effects, i.e. by examining to what extent the relationship between outcome and predictor can be accounted for by mediation variable. In the present context, the difficulty was the cross-classified data structure, which eliminated the possibility of using simple mediation models as they are commonly found in the literature (e.g., Baron and Kenny 1986). For present purposes, I relied on a so-called 2-2-1 cross-classified mediation model based on Luo (2017). This model included two higher levels (student level and course level), with grades by specific students in specific courses nested within them. The hypothesized mediation pertains primarily to the student level, i.e. one of the second levels. The model by Luo (2017) allows for a test of this second-level mediation model in which I expect the relationship between a student's political orientation and a

student's (average) grades to be mediated by a (student's) stated ambitions. At the same time, this model preserves the second clustering of grades within different courses.

To test any mediational hypothesis, it is imperative to examine indirect effects (see Table 5). Conventional ambition was involved in five indirect effects whose coefficients had 95% confidence intervals that did not include zero. In all cases, the coefficient was negative—the result of the coefficient of political orientation on conventional ambition being positive, and the coefficient of conventional ambition on each of the five grade variables being negative. (Recall that the indirect coefficient is the multiplicative product of the latter two coefficients). This implies that, whereas higher levels of conservatism are associated with ambition to pursue conventional goals, doing so also implied lower levels of academic success. Specifically, I observed this dynamic in the fields of mathematics, life science, engineering, social science and humanities. Notably, these fields differ in the extent to which they might be considered susceptible to potential ideological bias, with mathematics likely to be considered mostly immune from such influences.

Remarkably, the indirect coefficient for business grades—which are central to the present investigation—was positive and its 95% confidence interval did include zero,  $ab = < 0.001$ ,  $CI_{95\%} [-0.004, 0.002]$ . Closer examination revealed that, among the subgroup of students who had taken business courses (i.e. who were included in this particular analysis), there was a negative, though non-significant association between conventional ambition and academic success in business courses,  $b = -0.014$ ,  $p = .33$ . However, somewhat surprisingly, the coefficient of conservatism on conventional ambition was also negative,  $b = -.006$ ,  $p = .41$ . That is, though this coefficient was far from statistically

significant, higher levels of conservatism implied slightly lower levels of conventional ambition among this subset of business students. Though these findings cannot be considered conclusive, they are not consistent with predictions.

Political influence ambition were associated with a single significant indirect effect, which occurred in mathematics courses. The indirect effect,  $ab = .003$ ,  $CI_{95\%} [0.000, 0.006]$  suggests that, as far as conservatism predicts a lower desire to influence the political structure, lower desire facilitates higher mathematics GPA. In mathematics courses, conservatism predicted lower political influence ambition,  $b = -.047$ ,  $p = .005$ . This is coupled with political influence ambition predicting lower GPA in mathematics,  $b = -.058$ ,  $p = .005$ . Explaining why this pattern exists in mathematics courses is challenging. It is possible that lower political influence ambition mediates the positive relationship between conservatism and mathematics GPA because conservatives with less interest in influencing politics are more drawn to abstract problems, the practical applications of mathematics, or some combination. Nevertheless, more interesting is the lack of significance in other fields of study. Surprisingly, there were no effects in business or economics, where theory suggests they should have been negative. If conservatives are more interested in practical career goals and the business and economics environments suit those goals well, then conservatives who are interested in influencing the political structure might have earned lower grades in business. Similarly, liberals with political influence ambition should have excelled in environments like the social sciences and humanities, but did not.

The desire to achieve in science was not associated with any significant indirect effects. This complete lack of null findings is interesting, especially given that student

performance in fields like mathematics, engineering, life science, physical science, and social science was analyzed. Theory also suggests that it is conservatives who are far less interested in pursuing doctoral degrees and careers in academia, suggesting that indeed liberals should have a greater desire to achieve scientifically, and then also earn better grades in the sciences. Yet, this was not the case.

Artistic ambition was associated with five significant direct effects, in business, economics, mathematics, physical sciences and social sciences. These effects range from .004 to .012 (all 95% confidence intervals).

In the field of business, that is, among students who received at least one grade in a business course, conservatism predicted lower artistic ambition,  $b = -.087, p < .001$ , and artistic ambition once again predicted lower GPA,  $b = -.161, p < .001$ . An identical pattern emerged in economics courses where conservatism predicted lower artistic ambition,  $b = -.095, p < .001$ , and artistic ambition predicted lower GPA,  $b = -.104, p < .001$ . These results suggest that the extent to which conservatives have low artistic ambition, they perform well in business and economics courses. This is in line with the guiding theory given that conservatives should experience greater fit in business and economics due to their typically higher levels of practical and status quo-reaffirming ambition, neither of which are greatly satisfied in the arts.

Conservatism predicted lower artistic ambition,  $b = -.130, p < .001$ , and artistic ambition predicted lower mathematics GPA,  $b = -.090, p < .001$ . This suggests that, to the extent that conservatives' artistic ambition are low, their mathematics GPA increases. Possibly, conservatives hold no or little ambition concerning the arts since this field seems to offer much in term of practical skill. Indeed, to the extent that they turn away

from the less practical nature of the arts, they achieve better in math, a field that seems more practical in terms of its marketable skills. Put differently, to many students, mathematics and the arts appear to be largely incompatible fields in terms of their perceived practicality, politicization, and level of technicality. To the extent that students who are oriented toward one field are perhaps less likely to be oriented toward the other. In the present study, if conservatives feel less ambitious concerning the arts, this facilitates their fit with and ultimately their success in mathematics.

Artistic ambition mediated the relationship between conservatism and GPA in the physical sciences such that conservatives achieve higher grades in the physical sciences when they have lower levels of artistic aspirations. Conservatism predicted lower artistic aspirations,  $b = -.134, p < .001$ , and artistic aspirations predicted lower GPA in physical science courses,  $b = -.083, p < .001$ . This finding is in-line with some of the guiding theory in that conservatism is linked to a greater desire for lucrative, practical goals, which can be satisfied in multiple areas of physical science including those related to chemistry or nuclear science, for example. Similar to mathematics, these fields rarely if ever encompass the key facets of artistic fields such as their lack of practicality, technicality and their political content. This might explain why conservatives with lower levels of artistic aspirations do better in the physical sciences.

Lastly, artistic ambition mediated the relationship between conservatism and GPA in the social sciences: Among students taking social science courses, conservatism predicted lower artistic ambition,  $b = -.154, p < .001$  and artistic ambition predicted lower GPA,  $b = -.029, p < .018$ . Given the leftward bent of the social sciences (Gross and Simmons 2014), this finding suggests that those who hold high levels of artistic ambition

tend to achieve lower in college in general, possibly due to the more free-spirited, less structured, and more experiential nature of the arts, that is starkly contrasted with the ways virtually every other field of study is organized.

The desire to promote social justice was revealed to be involved in significant indirect effects in two areas of study, the sports sciences,  $ab = -.016$ ,  $CI_{95\%} [-0.042, 0.000]$ , and the humanities,  $ab = -.005$ ,  $CI_{95\%} [-0.010, -0.001]$ . In sports sciences, conservatism predicted lower social justice ambition,  $b = -.112$ ,  $p = .017$ , and social justice ambition predicted higher GPA,  $b = .161$ ,  $p = .004$ . These findings suggest that conservatives achieve lower grades in sports sciences to the extent that they hold high social justice ambition, while liberals earn higher grades to the extent that they hold high social justice ambition. Though I am unable to provide a cogent explanation, I speculate that there is a relationship between wanting to be involved in improving one's community and working closely with athletes to advance their careers, possibly because of the belief that sports participation is important for community development (Coakley 2011).

Regarding the humanities, conservatism predicted lower social justice ambition,  $b = -.163$ ,  $p < .001$ , and social justice ambition predicted higher GPA,  $b = .034$ ,  $p = .005$ . These results suggest that more conservative students endorse social justice related goals to a lesser extent than liberals and that this endorsement is linked to lower grades in the humanities. For liberals, their higher social justice ambition led to higher grades in the humanities. Based on the theoretical perspectives used to guide the present research, this finding is in perfect alignment. Conservatives tend to endorse the status quo to a greater extent than their liberal counterparts, which implies that they see social justice as less of a pressing concern. Similarly, these results suggest that their lack of social justice ambition

reflects value incongruence in the humanities in the sense that the humanities emphasize students to examine society critically.

### **Discussion**

Based on work by Woessner and Kelly-Woessner (2009) and Kemmelmeier et al. (2005) this work investigated whether students' ambition and political identification are related to performance in college-level business courses. I evaluated the applicability of concepts drawn from the Person-Environment Fit literature to explain these relationships and in so doing, sought to contribute to scholarship on higher education and to organizational behavior.

The central focus of my study was to re-evaluate previous research relating political identification to college success, and then to introduce life-ambitions as possible mediator of the effect of political identification on GPA. This enabled me to evaluate a number of claims from prior research.

The first such claim, introduced by Woessner and Kelly-Woessner (2009), is that conservative students are more prone to hold ambitions related to financial success. This claim was supported in the present analyses. Conservatism predicted higher levels of conventional ambition and lower levels of every other ambition included in the study. Conversely, liberal students were more ambitious in terms of social justice, political influence, scientific pursuits and the arts. These findings support claims by Edwards and Shipp (2007) that people's ambitions and goals are at least in part derived from their conception of reality. Sociologically speaking, this indicates that the kinds of social roles students strive to occupy and the kinds of social identities they seek to construct reflect the extent to which they approve or disapprove of existing social and economic systems.

Granted, my study did not examine whether students actually achieve the ambitions they espouse, but it still demonstrated that students' conscious values are a predictor of what students seek to become. Those who embrace the prevailing logic of a capitalist society clearly show greater interest in achieving socioeconomic status. Those who do not embrace said logic, or at least embrace it less warmly demonstrate far less interest in financial self-enrichment.

The second, critical claim was that conventional ambition would predict higher GPAs in business and economics courses; yet, it was not a significant predictor. In fact, conventional ambition was actually predictive of a lower GPA in life sciences, engineering and mathematics. Based on the concept of complementary fit, and the notion that people perform better in environments that satisfy their needs, I anticipated that students with conventional ambition would excel in business courses—which was not supported by the data.

Although not anticipated, there are a number of possible explanations for conventional ambition being a poor predictor of business GPA. It is possible that conventionally oriented students' ambition is not adequately satisfied in business or these other areas of study that are good platforms for launching a career.

Another plausible explanation is that conventionally oriented students are more focused on building their own company or gaining “real world” experience than spending extra hours studying to move an A- up to an A. The idea of doing one's very best in school has been suggested to be waste of time by some of the world's wealthiest entrepreneurs. For example, Jack Ma, founder of the Chinese e-commerce company Alibaba and one of China's wealthiest individuals is known in part for telling his son to

keep his grades somewhere in the middle so that there is still time to develop other lucrative skills (Custer 2015). Similar sentiments about the unessential nature of academic achievement are evident in the hiring practices of major U.S. technology companies like Apple and Google, neither of which require a college degree for sophisticated engineering and scientific roles (Connley 2018).

Conventional ambition does predict lower performance in several areas of study, including mathematics, engineering, life sciences, social sciences and humanities. These fields represent a wide range of inquiry, and indicate that conventional ambition is linked to lower performance in general. It could be the case that conventional ambition is related to lower performance in these different fields for different reasons. If conventional ambition truly is linked to lower performance in a general sense, it does not automatically mean that conventionally oriented students are less interested in their own learning. The present results might indicate a gap between students' ambition and knowledge of the specific steps and requirements to succeed in a given field. For example, conventionally oriented students might see engineering as a reliable path to conventional success, but also underestimate the amount of advanced mathematics and physics required to be successful. Moreover, conventionally oriented students might be so focused on their desired outcome of going to school, i.e. the career success, that they do not actually study with the same tenacity and dedication. Put another way, conventional ambition might leave students worse prepared for college because students are focused less on the process of college, but merely on the outcome of college. This would not be totally surprising given that college education is often primarily framed in terms of its economic value, but at the same time, would reveal that too great a focus on getting a career out of

college might limit one's ability to ever do so. Further research should investigate the relationship between students' level of career salience and their college outcomes.

My model also enabled a retest of Kimmelman et al.'s (2005) claim that value congruence between students' political preferences and the courses they attend has implications for academic performance. When this form of supplementary fit is high, students are expected to earn higher grades. However, the present attempt to replicate these authors' findings with a cross-classified regression model was not successful, even though based on the same data set. The cross-classified model more accurately models the data though, because it accounts for both the higher similarity in grades from the same course, and the higher similarity of grades earned by the same student. Kimmelman et al. (2005) only accounted for the similarity of grades earned by the same student. My improved model produced no evidence that conservatives obtained better grades in business fields or economics. But worth noting is the fact that Kimmelman et al. (2005) only modeled grades in courses that were classified as either Hierarchy-Attenuating or Hierarchy-Enhancing. By contrast, the present model included these courses as well as neutral fields like mathematics and chemistry. Nevertheless, I found that there were no effects of conservatism in the fields of business or economics, nor were there any in other disciplines that are susceptible to being shaped by one's political ideas such as the social sciences.

Despite the null findings of conservatism in various academic fields, there was a slight positive significant effect of conservatism on overall GPA, in place of the statistically nonsignificant, but positive effect reported by Kimmelman et al. (2005). On one hand, the null effect of conservatism on GPA in business and economics does not

support the idea that value congruence leads to better performance in these fields. However, in a more basic sense, there might be some degree of fit experienced by conservatives with the demands of an institution with clear guidelines for student evaluation. Attending college is often associated with notions of developing autonomy and critical thinking, but along the way, there students need to follow lots of instructions in order to succeed academically. When students fail to submit assignments on time or complete projects in accordance with their instructor's guidelines, their grades are impacted negatively. Conservatives might tend to be better at complying with directions than liberals, possibly because of a greater respect for hierarchy and authority.

Conservatives' higher grades could also reflect a stronger endorsement of socially conventional metrics of academic success, namely, grades. Instead of viewing grades as an imperfect way to measure student success, they might be more inclined to "buy in" to the idea that grades are a legitimate way to measure individuals' level of academic quality. At a more basic level, they might be more inclined to accept that educational success is even measurable, and that people can be assigned letters or quantitative values that reflect performance. In doing so, conservatives might also work harder to earn higher grades.

A self-fulfilling prophecy might take place in the sense that students' worldviews influence how strongly they believe that hard working people are rewarded fairly, which in turn shapes how hard they apply themselves in school. When students have the trust and confidence that society will reward their hard work they will likely invest more energy into their work compared with someone who lacks this confidence. Conservatives might have stronger confidence than liberals that their hard work will pay off because

their worldviews are more firmly rooted in seeing existing social and economic arrangements as legitimate and meritorious. Liberal students might view society as less fair than conservatives, instead seeing people's outcomes as being shaped by pervasive social forces that impact different groups in society differently. This might influence them to work less intensely in college either because they are a member of an underrepresented group and therefore think they cannot get ahead even if they try, or because they are a member of a privileged group and do not believe they have earned their spot in college purely through their own talents. With respect to the latter, further research might investigate the effect of students' perception of their social privilege on their educational outcomes.

Nevertheless, it is not clear why conservatives experience this modest boost to their overall college GPA. In the context of Person-Environment Fit, it is not even totally clear whether conservatives earn higher grades due to value congruence or needs-supplies fit (or another type of fit). Possibly, conservative values align with the notion of pursuing socially acceptable ways of elevating oneself in society through higher education. Put another way, maybe conservatives' hierarchy enhancing values line up with the idea of going about things in the "right" way. Another possibility is that among conservatives, educational prestige is viewed as a need that college can satisfy. This notion suggests that conservatives see educational prestige as necessary to elevate themselves and they are simply "playing the game" to get what they need for success.

My final model incorporated students' level of conventional ambition as a mediator of conservatism and GPA in business courses but did not lend support to my hypotheses. The failure of conventional ambition to mediate conservatism and business

school GPA has implications for the work of Kimmelmeier and others (2005). Their work demonstrated that conservatives earned better grades than their political opposites in some academic environments and speculated that mediating mechanisms could be the driving force. Woessner and Kelly-Woessner (2009) suggested that conservatives have more conventional ambition which influences what they study and how they perform. Although it is entirely possible that ambitions are at play, conventional ambition offered conservatives students no benefit in business or economics courses. However, unexpected and intriguing findings emerged, particularly with respect to artistic ambition. Artistic ambition was associated with significant, positive indirect effects, in five fields including business and economics. Because the effect of conservatism on artistic ambition was negative and the effect of artistic ambition on business GPA and economics GPA was also negative, it suggests that conservatives achieve higher in these fields to the extent that they do not hold artistic ambition. This demonstrates that conservatives tend to be less artistically oriented, possibly representing findings that conservatism is linked to lower openness to new experience (Jost et al. 2003). If this is the case, then there might be some element of the business and economics curriculum that suits students with a higher desire for certainty, perhaps in the sense that concepts are not open for interpretation. This mediating relationship might also indicate that artistically oriented students might be more interested in the creative aspects of education than managing their GPA, and that artistic ambition is related to a belief that reality can be understood in multiple ways.

### **Limitations and Assumptions**

#### **Data Limitations and Assumptions**

The survey data in the present study comes with a limitation because it was only

collected once shortly before students' first semester of college began. This makes it impossible to account for any changes in political identification or ambitions—and issue that may seem especially pertinent as college is a time of tremendous change and new experience for many students. Notably, a substantial minority of students ( $n = 382$ ) were surveyed again at the end of their second year in college, and at least political identification remained largely stable over time.

The transcript data is also imperfect. The data comes from a large university where several sections of the same course are taught. Yet, the present data did not allow me to differentiate various sections of the same course: this information was simply not accessible. It is possible because sections of any given course might have different average grades—a possibility which could not be assessed here. Hence, the present data inherently assume that there are no meaningful differences between the different sections of the same course. Though some commentators argue that sections of the same course are becoming more standardized (Wilson 2006; LeBar 2015), I am unable to investigate this issue with regard to course grades.

The data is also limited in that it is from the years between 1997 and 2001. One might speculate that the dynamics of politics in college might have changed, given that political polarization in the U.S. is presently greater than in 1997 (Pew Research Center 2014). I concede that political polarization may have indeed intensified; if it has, more extreme viewpoints may have increased the consequences of student political identification on grades. If this should be the case, however, the present data underestimate the effects as they currently exist in higher education. Only new data will be able to address this issue.

### **Theoretical Limitations and Assumptions**

The proposed research relies on some theoretical assumptions about P-E Fit and business schools. Although research shows that business schools tend to have more conservative students and faculty, the proposed study does not have data specific to the business faculty at the university where the data was collected. Hence, I assumed that the trends such as those documented by Gross and Simmons (2014) are representative of this study's business faculty. I also assume conventional ambition and conservatism fit with business curriculum, but students' perceived fit is not measured. The P-E Fit literature includes numerous studies that favor using perceived fit over objective fit, but given that the data does not include measures of perceived fit, objective fit will be used.

### **Theoretical Implications and Future Directions**

The present research has implications for the extant literature on Person-Environment Fit. Typically applied to vocational settings and processes, the present study examines P-E Fit in higher education, allowing for the theory to be extended to a wider range of human organizations.

Results showed that conservatism is not associated with higher GPA in business or economics fields, nor is it influential in other fields of study (with the peculiar exception of the physical sciences), even when in an analysis of overall GPA there was a very small advantage for conservatives. This suggests that value congruence is not an important factor in student performance in specific fields. This does not mean that value congruence within a given field of study does not facilitate other positive outcomes in college, such as attendance rates, and further research should investigate the effect of value congruence on other important educational outcomes such as attendance rates.

Further research should also investigate fit between students and universities on the whole, because despite conservatism's lack of influence in various fields, it did predict higher overall GPA. Future research on value congruence in higher education should examine why conservatives might fit better with universities in general. I speculate that these effects could be explained by conservatives' exhibiting a greater level of self-control.

Despite the ineffectiveness of supplementary fit in influencing students' grades in specific fields, complementary fit was influential. Although not influential in the hypothesized manner, several types of life-ambitions were related to differences in student performance. Conventional ambition was not related to better or worse performance in business and economics, and predicted lower performance in several technical fields that would benefit many students who seek a conventional career. In addition to the null effect of conventional ambition on business and economics GPA, artistic ambition was not predictive in any of the artistic areas and scientific ambition was not predictive of success in the sciences or mathematics. The implication for P-E Fit is that many students' needs are not fully satiated in the classroom. Of course, colleges offer a great deal more to students than narrow lectures on various topics. Conventionally oriented students likely try to satisfy their needs in other ways including practical experience, and networking. Artistically oriented students might see the quality of their personal portfolios as the only relevant barometer of success. Scientifically oriented students might satisfy their needs best by participating in the research process as a research assistant, or writing a thesis. Given that scientifically oriented students are most likely to benefit from high grades, further research in P-E Fit might investigate facets of universities that reduce the level of

fit that scientifically oriented students experience. In other words, P-E Fit can be used to investigate if the rigorous and somewhat arbitrary standards for admission into a career in academic science cause otherwise good candidates for the career to do other things.

Regarding the mediation model presented in this study, results suggest that needs-supplies fit can in fact mediate value congruence in higher education, though not exactly how I hypothesized. Conventional ambition did not mediate the relationship between conservatism and GPA in business or economics, but it and other ambitions mediate conservatism and GPA in other fields. The present study showed most often that higher ambitions were related to lower grades in some cases and lower ambitions were related to higher grades in others. Regardless, it shows that the aims students want to achieve are important for their success in different environments, and also that these ambitions are associated with their world views. One notable example is that conservative students with low artistic ambition earn higher grades in business and economics. This lends support to the notion of needs-supplies fit as a mediator of value congruence and positive outcomes. Though in this example it is not precisely clear what conservative students do want, it does suggest that when students experience lower fit between their ambition and their environment, their performance suffers. Future research should therefore aim at understanding the what needs conservative students do seek to satisfy in an attempt to better model the relationship between political values and success in college.

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**Tables**

Table 1a. Overview of descriptive statistics.

	N	Mean or % (SD)	Min	Max
<i>Student-level independent variables</i>				
<b>Sex</b>				
Males	1,908			
Females	1,871			
Missing	8			
<b>Age</b>				
17	114			
18	2,914			
19	727			
20	12			
21-24	12			
25-29	1			
30-39	1			
40-49???	1			
<b>Race*</b>				
White		77.97		
Black		7.27		
American Indian		2.22		
Mexican/Chicano		2.14		
Puerto Rican		0.56		
Other Latin		1.67		
Chinese		2.56		
Filipino		1.27		
Japanese		0.50		
Korean		2.06		
South East Asian		0.69		
Other Asian		5.29		
Other		2.93		
<b>Native English speaker</b>				
Non-Native speaker	238			
Native speaker	3,532			
Missing	12			

**Financial concern**

None	1,526
Some	1,909
Major	339
Missing	8

*Mediating variables*

Conventional ambition	3,702	2.40	(0.70)	1	4
Political Influence Ambition	3,691	2.15	(0.69)	1	4
Scientific Ambition	3,708	2.43	(0.64)	1	4
Artistic Ambition	3,703	1.54	(0.66)	1	4
Social Justice Ambition	3,691	2.25	(0.63)	1	4

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Note: Percentages of races do not sum to 100% because students were allowed to select as many races as they identified with. \*

Table 1b. Overview of descriptive statistics.

	N	Mean or %	(SD)	Min	Max
<i>Dependent variables</i>					
Business Grades	3,629	3.23	(0.65)	0	4.333
Economics Grades	4,888	2.97	(0.82)	0	4.333
Mathematics Grades	3,009	2.88	(0.86)	0	4.333
Engineering Grades	13,106	3.18	(0.76)	0	4.333
Physical Sciences Grades	14,347	3.03	(0.84)	0	4.333
Social Sciences Grades	16,113	3.35	(0.68)	0	4.333
Life Sciences Grades	7,666	3.23	(0.80)	0	4.333
Sports Sciences Grades	1,238	3.33	(0.73)	0.666	4.333
Education Grades	1,485	3.69	(0.54)	0.666	4.333
Humanities Grades	32,503	3.34	(0.64)	0	4.333
Fine Arts Grades	2,181	3.50	(0.57)	0.666	4.333
Performing Arts Grades	6,215	3.61	(0.53)	0	4.333
Music Grades	4,034	3.62	(0.65)	0.666	4.333
<b>Frequency of courses in each area of study</b>					
Business	3,772				
Economics	5,014				
Mathematics	8,224				
Engineering	13,478				
Physical Sciences	14,913				
Social Sciences	16,904				
Life Sciences	8,024				
Sports Sciences	1,314				
Education	1,508				
Humanities	34,023				
Fine Arts	2,434				
Performing Arts	4,450				
Music	6,481				
Unique courses in data	3,343				

Table 2. Regression of life-ambitions on student-level and course-level variables.

	<u>Conventional</u>		<u>Political</u>		<u>Artistic</u>		<u>Scientific</u>		<u>Social Justice</u>	
	<i>b</i>	( <i>se</i> )	<i>b</i>	( <i>se</i> )	<i>b</i>	( <i>se</i> )	<i>b</i>	( <i>se</i> )	<i>b</i>	( <i>se</i> )
Intercept	2.03***	(.12)	1.99***	(.02)	1.50***	(.12)	2.42***	(.12)	2.60***	(.11)
Sex <sup>a</sup>	.26***	(.02)	.05 <sup>+</sup>	(.02)	-.09***	(.02)	.10***	(.02)	-.20***	(.02)
Race <sup>b</sup>										
Black	.31***	(.05)	.31***	(.01)	-.07 <sup>+</sup>	(.04)	.32***	(.04)	.40***	(.01)
Am. Indian	-.07	(.08)	-.01	(.01)	-.02	(.08)	.06*	(.07)	-.12 <sup>+</sup>	(.01)
Mex. Am.	.02	(.08)	-.02	(.01)	.07	(.07)	.05	(.07)	.16*	(.01)
Puerto Rican	-.25 <sup>+</sup>	(.15)	.18	(.03)	-.10	(.14)	-.22	(.15)	.12	(.03)
Other Latino	.03	(.09)	.06	(.02)	.09	(.09)	.06	(.01)	.13 <sup>+</sup>	(.01)
Chinese	.28***	(.07)	-.09	(.01)	.02	(.07)	.16*	(.01)	.04	(.01)
Filipino/a	.09	(.10)	-.09	(.02)	-.02	(.09)	-.02	(.09)	.10	(.02)
Japanese	.19	(.15)	.20	(.03)	.10	(.15)	.03	(.15)	.29*	(.02)
Korean	.32***	(.08)	.18*	(.01)	.05	(.08)	.12	(.08)	.25***	(.01)
S. E. Asian	.15	(.13)	.01	(.02)	.27*	(.13)	.11	(.13)	.06	(.02)
Other Asian	.26***	(.05)	.07	(.01)	-.11*	(.05)	.13**	(.05)	.28***	(.01)
Other	.14*	(.07)	.21**	(.01)	.10	(.06)	.16*	(.06)	.12*	(.01)
Age <sup>c</sup>										
18 years	.13 <sup>+</sup>	(.07)	-.04	(.07)	-.02	(.06)	.03	(.06)	.01	(.06)
19 years	.06	(.07)	-.05	(.07)	-.03	(.07)	.00	(.07)	-.04	(.06)
20 years	-.40*	(.20)	-.19	(.29)	-.08	(.20)	-.39*	(.19)	-.19	(.18)
21-24 years	-.27	(.24)	-.38	(.25)	.29	(.23)	.02	(.23)	-.01	(.21)
25-29 years	.86	(.66)	.84	(.69)	-.25	(.64)	1.26*	(.64)	.24	(.59)
30-39 years	.60	(.66)	n/a	n/a	-.33	(.64)	-.63	(.64)	-.17	(.59)
SAT	-.15***	(.01)	-.03***	(.00)	-.06***	(.01)	.00	(.01)	-.04***	(.01)
HS GPA	.02 <sup>+</sup>	(.01)	.02***	(.00)	-.05***	(.01)	.06***	(.01)	.02	(.01)
Financial concern <sup>d</sup>										
Some	-.07**	(.02)	-.02***	(.00)	.03	(.02)	.00	(.00)	.01***	(.02)
Major	-.02	(.04)	-.02*	(.01)	.11**	(.04)	.09***	(.04)	.12***	(.04)
Native English <sup>e</sup>	-.07***	(.01)	.06***	(.01)	.09 <sup>+</sup>	(.05)	-.11*	(.05)	-.07***	(.04)
Conservatism	.09***	(.01)	-.04***	(.00)	-.13***	(.01)	-.03**	(.01)	-.13***	(.01)

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ .

<sup>a</sup> Males serve as reference category.

<sup>b</sup> Whites serve as reference category.

<sup>c</sup> 17 years old serves as reference category.

<sup>d</sup> No financial concern serves as reference category.

<sup>e</sup> Non-native English speaker serves as reference category.

Table 3. Regression of students' overall GPA on student-level and course-level variables.

	<u>Model 1</u>		<u>Model 2</u>	
	<i>b</i>	( <i>se</i> )	<i>b</i>	( <i>se</i> )
<i>Level 1</i>				
Intercept	3.90***	(.34)	3.92***	(.21)
<i>Level 2</i>				
<u>Course variables (Level 2a)</u>				
Business <sup>a</sup>	.22***	(.06)	.21***	(.06)
Economics <sup>a</sup>	.05	(.06)	.04	(.06)
Life sciences <sup>a</sup>	.23***	(.04)	.22***	(.04)
Sports sciences <sup>a</sup>	.65***	(.06)	.64**	(.06)
Physical sciences <sup>a</sup>	.13**	(.04)	.13**	(.04)
Social sciences <sup>a</sup>	.42***	(.04)	.41***	(.04)
Education <sup>a</sup>	.75***	(.56)	.74***	(.06)
Humanities <sup>a</sup>	.41***	(.04)	.40***	(.04)
Engineering <sup>a</sup>	.14***	(.04)	.13**	(.04)
Performing arts <sup>a</sup>	.71***	(.05)	.69***	(.05)
Music <sup>a</sup>	.66***	(.04)	.66***	(.04)
Fine arts <sup>a</sup>	.54***	(.05)	.54***	(.05)
School year <sup>b</sup>				
Year 2	-.01	(.01)	-.004	(.06)
Year 3	-.03**	(.01)	-.02**	(.01)
Year 4	-.03***	(.01)	-.03**	(.01)
<u>Student variables (Level 2b)</u>				
Sex <sup>c</sup>	-.08***	(.01)	-.06***	(.01)
Race <sup>d</sup>				
Black/African Am.	-.18***	(.03)	-.18***	(.03)
American Indian	-.19***	(.04)	-.17***	(.05)
Mexican Am. /Chicano	-.07	(.04)	-.09 <sup>+</sup>	(.04)
Puerto Rican Am.	-.01	(.09)	-.08	(.09)
Other Latino	.09 <sup>+</sup>	(.05)	.09 <sup>+</sup>	(.05)
Chinese Am. /Chinese	.08*	(.04)	.09*	(.04)
Filipino Am. /Filipino	-.05	(.06)	-.04	(.06)
Japanese Am. /Japanese	-.17 <sup>+</sup>	(.09)	-.17 <sup>+</sup>	(.09)
Korean Am. /Korean	-.14**	(.05)	-.12**	(.05)
Southeast Asian	-.18**	(.08)	-.15 <sup>+</sup>	(.08)
Other Asian Am. /Asian	.01	(.03)	.01	(.03)
Other	.05	(.04)	.05	(.04)
Age <sup>e</sup>				
17 years	-.03	(.04)	-.01	(.04)
18 years	-.03	(.04)	.00	(.04)
19 years	.14	(.12)	-.16	(.12)
20 years	.37*	(.15)	.40**	(.15)

21-24 years	.31 (.43)	.37 (.43)
25-29 years	1.13** (.41)	
30-39 years	1.03* (.46)	
SAT	.15*** (.01)	.14*** (.01)
HS GPA	.15*** (.01)	.15*** (.01)
Financial concern <sup>f</sup>		
Some financial concern	-.06*** (.01)	-.06*** (.06)
Major financial concern	-.10*** (.02)	-.10*** (.02)
Native English <sup>g</sup>	.04 (.03)	.05 (.03)
Conservatism	.01 <sup>+</sup> (.01)	.02* (.01)
Conventional ambition		-.04*** (.01)
Political influence ambition		.01 (.01)
Arts ambition		-.02 <sup>+</sup> (.01)
Science ambition		-.01 (.01)
Social justice ambition		.03** (.01)
Variance components		
-2LL	188,367.4	179,715.8
AIC	188,473.4	179,829.8
BIC	188,985.2	180,377.7

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\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ .

<sup>a</sup> Math grades serve as reference category.

<sup>b</sup> Year 1 (students' freshman year) serves as reference.

<sup>c</sup> Males serve as reference category.

<sup>d</sup> Race variables all represent binary

<sup>e</sup> 16 years or less serves as reference category.

<sup>f</sup> No financial concern serves as reference category

<sup>g</sup> Non-native English speaker serves as the reference category.

Table 4. Regression of field-specific GPAs on conservatism (controlling for life-ambitions, sex, race, native language, SAT, high school GPA, age and financial concern).

	<i>b</i>	( <i>se</i> )	<i>N</i>
Business	.040 <sup>+</sup>	(.026)	3,629
Economics	.022	(.024)	4,888
Mathematics	.027 <sup>+</sup>	(.016)	3,009
Life sciences	.023	(.020)	7,666
Sports sciences	.050 <sup>+</sup>	(.037)	1,238
Physical sciences	.033 <sup>*</sup>	(.015)	14,347
Social sciences	.004	(.011)	16,113
Education	-.013	(.026)	1,485
Humanities	.009	(.008)	32,503
Engineering	.030	(.021)	13,106
Performing arts	.032 <sup>+</sup>	(.020)	4,034
Music	-.032	(.024)	6,215
Fine arts	.015	(.029)	2,181

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ , + $p < .10$ .

Table 5. Regression of field-specific GPAs on life-ambitions (controlling for political identification, sex, race, native language, SAT, high school GPA, age, and financial concern).

	<i>b</i>	( <i>se</i> )	<i>N</i>
<b>Business</b>			3,629
Conventional	-.001	(.04)	
Political Influence	.02	(.03)	
Scientific	-.06 <sup>+</sup>	(.04)	
Artistic	-.16 <sup>***</sup>	(.04)	
Social Justice	-.01	(.04)	
<b>Economics</b>			4,888
Conventional	-.02	(.03)	
Political Influence	-.02	(.03)	
Scientific	-.04 <sup>+</sup>	(.03)	
Artistic	-.10 <sup>***</sup>	(.04)	
Social Justice	-.001	(.03)	
<b>Mathematics</b>			3,009
Conventional	-.05 <sup>*</sup>	(.02)	
Political Influence	-.05 <sup>*</sup>	(.02)	
Scientific	.03	(.02)	
Artistic	-.09 <sup>***</sup>	(.02)	
Social Justice	.02	(.02)	
<b>Life sciences</b>			7,666
Conventional	-.06 <sup>***</sup>	(.02)	
Political Influence	-.03	(.03)	
Scientific	.02	(.03)	
Artistic	.01	(.03)	
Social Justice	.03	(.03)	
<b>Sports sciences</b>			1,238
Conventional	-.01	(.05)	
Political Influence	.03	(.06)	
Scientific	-.02	(.05)	
Artistic	-.20 <sup>***</sup>	(.06)	
Social Justice	-.16 <sup>**</sup>	(.06)	

<b>Physical sciences</b>		14,347
Conventional	-.03 (.02)	
Political Influence	-.02 (.02)	
Scientific	.03 (.02)	
Artistic	-.08*** (.02)	
Social Justice	.04 <sup>+</sup> (.02)	
<b>Social sciences</b>		16,113
Conventional	-.05*** (.02)	
Political Influence	.03 <sup>+</sup> (.02)	
Scientific	-.02 <sup>+</sup> (.02)	
Artistic	-.03* (.01)	
Social Justice	.03 <sup>+</sup> (.02)	
<b>Education</b>		1,485
Conventional	.001 (.04)	
Political Influence	-.02 (.04)	
Scientific	.02 (.04)	
Artistic	-.04 (.04)	
Social Justice	.06 <sup>+</sup> (.04)	
<b>Humanities</b>		32,503
Conventional	-.04*** (.01)	
Political Influence	.03** (.01)	
Scientific	-.02 (.01)	
Artistic	.01 (.01)	
Social Justice	.03** (.01)	
<b>Engineering</b>		13,106
Conventional	-.06* (.02)	
Political Influence	-.02 (.03)	
Scientific	.05 <sup>+</sup> (.03)	
Artistic	-.03 (.03)	
Social Justice	.02 (.03)	
<b>Performing arts</b>		4,034
Conventional	-.01 (.03)	
Political Influence	-.03 (.03)	
Scientific	.03 (.03)	
Artistic	.04 <sup>+</sup> (.02)	
Social Justice	.04 (.04)	

<b>Music</b>			6,215
Conventional	-0.02	(.03)	
Political Influence	-0.04	(.03)	
Scientific	.02	(.04)	
Artistic	.01	(.02)	
Social Justice	.02	(.03)	
<b>Fine arts</b>			2,181
Conventional	-0.04	(.04)	
Political Influence	-0.00	(.05)	
Scientific	.02	(.04)	
Artistic	.01	(.03)	
Social Justice	.05	(.04)	

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\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , +  $p < .10$ .

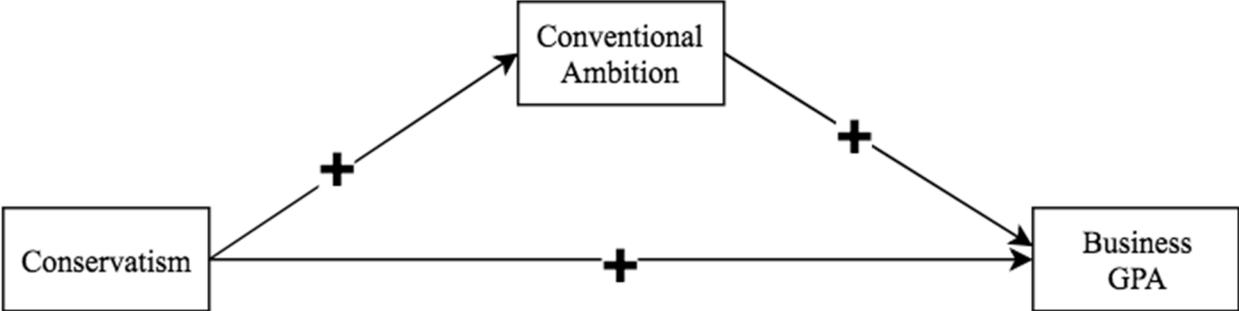
Table 6. Indirect effects of conservatism and life-ambitions on GPA in 13 categories of disciplines.

	Conventional		Political influence		Scientific		Artistic		Social justice	
	<i>b</i>	95%CI	<i>b</i>	95%CI	<i>b</i>	95%CI	<i>b</i>	95%CI	<i>b</i>	95%CI
Math	<b>-0.004</b>	[-0.009, 0.000]	<b>0.002</b>	[0.000, 0.006]	-0.001	[-0.004, 0.001]	<b>0.012</b>	[0.006, 0.017]	-0.003	[-0.011, 0.003]
Business	<0.001	[-0.004, 0.002]	0.000	[-0.006, 0.002]	0.002	[-0.002, 0.008]	<b>0.014</b>	[0.004, 0.026]	0.001	[-0.015, 0.019]
Economics	-0.001	[-0.005, 0.002]	0.001	[-0.001, 0.005]	0.002	[-0.001, 0.007]	<b>0.010</b>	[0.004, 0.019]	0.000	[-0.011, 0.012]
Life sci.	<b>-0.006</b>	[-0.012, -0.002]	0.001	[-0.001, 0.004]	0.000	[-0.003, 0.001]	-0.001	[-0.007, 0.005]	-0.003	[-0.013, 0.005]
Physical sci.	-0.003	[-0.006, 0.001]	0.001	[0.000, 0.002]	-0.001	[-0.004, 0.001]	<b>0.011</b>	[0.006, 0.016]	-0.006	[-0.013, 0.001]
Engineering	<b>-0.006</b>	[-0.012, -0.002]	0.001	[-0.001, 0.004]	0.000	[-0.003, 0.001]	-0.001	[-0.007, 0.005]	-0.003	[-0.013, 0.005]
Social sci.	<b>-0.006</b>	[-0.010, -0.002]	-0.001	[-0.004, 0.000]	0.001	[0.000, 0.002]	<b>0.004</b>	[0.000, 0.008]	-0.004	[-0.011, 0.001]
Sports sci.	0.000	[-0.006, 0.006]	0.000	[-0.006, 0.011]	0.000	[-0.007, 0.007]	-0.003	[-0.023, 0.015]	<b>-0.016</b>	[-0.042, 0.000]
Education	0.000	[-0.009, 0.010]	0.000	[-0.006, 0.008]	0.000	[-0.007, 0.004]	0.001	[-0.005, 0.009]	-0.011	[-0.031, 0.004]
Humanities	<b>-0.004</b>	[-0.007, -0.001]	<b>-0.001</b>	[-0.003, 0.000]	0.001	[0.000, 0.002]	-0.002	[-0.006, 0.001]	<b>-0.005</b>	[-0.010, -0.001]
Perform. arts	0.000	[-0.009, 0.006]	0.003	[-0.003, 0.012]	0.000	[-0.004, 0.002]	-0.008	[-0.019, 0.001]	-0.006	[-0.022, 0.005]
Music	-0.002	[-0.010, 0.005]	0.003	[-0.005, 0.011]	0.000	[-0.003, 0.003]	-0.002	[-0.014, 0.006]	-0.003	[-0.012, 0.007]
Fine arts	-0.004	[-0.018, 0.004]	0.000	[-0.005, 0.005]	-0.001	[-0.008, 0.004]	0.001	[-0.008, 0.010]	-0.005	[-0.022, 0.003]

Note: Bolded effects are statistically significant at the  $p < .05$  level.

Figures

Figure 1. Theoretical model of academic performance in business courses.



## Appendices

### Appendix A.

**Political identification:** Students' political affiliation is measured with a single question with five answer choices ranging from "far left" to "far right." These qualitative self-descriptions were recoded, such that "far left" is 1, and "far right" is 5.

Question:

- "How would you characterize your political views? Mark one of the following:"

<b>Far left</b>	
<b>Left</b>	
<b>Middle of the road</b>	
<b>Right</b>	
<b>Far right</b>	

## Appendix B.

**Conventional ambition scale:** The degree to which students hold conventional ambition is measured with an additive scale comprised of three items, each of which students rated as “essential, very important, somewhat important or not important.” These scores were recoded with 4 representing “essential,” and 1 representing “not important.”

Question: Please indicate the importance to you personally of each of the following:

- Be very well off financially.
- Be successful in own business.
- Have administrative responsibility.

**Political Influence Ambition Scale:** The degree to which students hold conventional ambition is measured with an additive scale comprised of three items, each of which students rated as “essential, very important, somewhat important or not important.” These scores were recoded with 4 representing “essential,” and 1 representing “not important.”

Question: Please indicate the importance to you personally of each of the following:

- Influence political structure.
- Influence social values.
- Keep up with political affairs.
- Be a community leader.

**Artistic ambition scale:** The degree to which students hold conventional ambition is measured with an additive scale comprised of three items, each of which students rated as “essential, very important, somewhat important or not important.” These scores were recoded with 4 representing “essential,” and 1 representing “not important.”

Question: Please indicate the importance to you personally of each of the following:

- Achieve in a performing art.
- Create artistic work.
- Write original works.

**Scientific ambition scale:** The degree to which students hold conventional ambition is measured with an additive scale comprised of three items, each of which students rated as “essential, very important, somewhat important or not important.” These scores were recoded with 4 representing “essential,” and 1 representing “not important.”

Question: Please indicate the importance to you personally of each of the following:

- Make theoretical contribution to science.
- Become authority in my own field.
- Obtain recognition from colleagues.

**Social Justice Ambition Scale:** The degree to which students hold conventional ambition is measured with an additive scale comprised of three items, each of which students rated as

“essential, very important, somewhat important or not important.” These scores were recoded with 4 representing “essential,” and 1 representing “not important.”

Question: Please indicate the importance to you personally of each of the following:

- Be involved in environmental clean-up.
- Help others in difficulty.
- Take part in community action.
- Promote racial understanding.

### **Appendix C.**

List of academic fields by operationalized coding scheme.

#### **Business fields**

- Accounting
- Business
- Computer Information Systems
- Corporate Strategy International Business
- Entrepreneurship
- Finance
- International Business
- Marketing
- Organizational Behavior-Human Resources Management
- Operations Management
- Statistics and Management Science

#### **Economics fields**

- Economics

#### **Mathematics fields**

- Mathematics
- Statistics
- Complex Systems

#### **Life sciences fields**

- Atmospheric, Oceanic and Space Sciences
- Anatomy
- Biology
- Biological Chemistry
- Biophysics
- Biostatistics
- Dentistry
- Environmental and Industrial Health
- Epidemiology
- Geography
- Health Behavior and Health Education
- Human Genetics
- Integrated Premedical Program
- Medical Chemistry
- Microbiology
- Natural Resources and the Environment
- Nursing
- Obstetrics and Gynecology

- Pathology
- Pediatrics
- Pharmaceutical Chemistry
- Pharmaceuticals
- Pharmacy
- Pharmacology
- Physiology
- RC Interdivisional Science
- Surgery

**Physical sciences fields**

- Astronomy
- Chemistry
- Geological Science
- Nuclear Engineering and Radiological Sciences
- Residential College Natural Sciences
- Physics

**Engineering fields**

- Aeronautics
- Architecture
- Biomedical Engineering
- Computer and Electrical Engineering
- Chemical Engineering
- Computer Science
- Electrical Engineering and Computer Science
- Engineering
- Industrial and Operations Engineering
- Materials Science
- Mechanical Engineering
- Manufacturing
- Military Science
- Naval Architecture
- Naval Science
- Technical Communications
- Urban Planning

**Social sciences fields**

- Cultural Anthropology
- Biological Anthropology
- Communications
- Political Science
- Psychology
- Public Policy

- Residential College Social Sciences
- Information Studies
- Sociology

**Sports sciences fields**

- Athletic Training
- Kinesiology
- Movement Science
- Sports Management and Conditioning

**Education fields**

- Music Education
- Educational Curricular Instruction
- Education
- Physical Education

**Humanities fields**

- Arabic, Armenian, Persian, Turkish and Islamic Studies
- Ancient Civilizations and Biblical Studies
- Afro-American and African Studies
- American Culture
- Armenian
- Asian
- Buddhist Studies
- Center for Arab American Studies
- Chinese
- Classical Architecture
- Classical Civilization
- Comparative Literature
- Czech
- Dutch
- English Composition Board
- English
- French
- German
- Greek
- Great Books
- History of Art
- History
- Hebrew and Jewish Cultural Studies
- Institute for the Humanities
- Italian
- Japanese
- Judaic

- Korean
- Latin American and Caribbean Studies
- Latin
- Law History and Communication
- Linguistics
- Medieval and Renaissance
- Medieval and Early Modern Studies
- Middle Eastern and African Studies
- Modern Greek
- Philosophy
- Polish
- Portuguese
- Residential College Humanities
- Russian, Eastern European and Eurasian Studies
- Religion
- Romance Linguistics
- Russian
- South and Southeast Asia
- Scandinavian
- Serbo-Croatian
- Slavic
- Spanish
- Women Studies

**Performing arts fields**

- Dance
- Film and Video
- Musical Theatre
- Opera
- Performing Arts Technology
- Theatre

**Fine arts fields**

- Art and Design
- Arts-Tech
- Residential College Arts

**Music fields**

- Euphonium-Baritone
- Bassoon
- Carillon
- Cello
- Clarinet
- Composition

- Conducting
- Double Bass
- Ensemble
- Flute
- French Horn
- Guitar
- Harp
- Jazz
- Music Education
- Musicology
- Music Methodology
- Music Performance
- Musicology
- Oboe
- Organ
- Percussion
- Piano
- Piano Literature Pedagogy
- Saxophone
- Music Theory
- Trombone
- Trumpet
- Tuba
- Voice
- Violin
- Viola
- Wind Percussion