THE "PROTECTIVE EFFECTS" OF RELIGIOUS CONTINUITY FOR ACADEMIC ACHIEVEMENT AMONG RACIAL/ETHNIC MINORITIES AND IMMIGRANTS AT ELITE COLLEGES AND UNIVERSITIES IN THE UNITED STATES*

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ABSTRACT

Stratification research focuses on race, class, and gender, but often overlooks religion, which also shapes identity. Although some scholars predict the decline of religion as an organizing principle in modern society, they nonetheless agree that to the extent religion remains predictive of adult social and economic outcomes, religious behaviors formed in college tend to persist into adulthood. A shortage of longitudinal measures of religiosity limits previous attempts to measure religious decline in college, and its associations with indicators of social mobility, like academic achievement. Because elite institutions recruit racial/ethnic minority and immigrant students, and these students comprise America's future leadership, studies of their religious change is critical. Using a racially diverse sample of students at 28 elite institutions, this study finds declining religious participation in college, but declines do not disrupt lasting path dependencies between childhood and college religiosity and academic performance, particularly for racial/ethnic minorities and immigrants.

INTRODUCTION

Researchers have long predicted the decline of religion as an organizing principle of modern society (Durkheim 2001 [1915], 1964 [1893]; Sorokin 1956; Luckmann 1967; Stark and Glock 1968). Although trends in secularlization have indeed influenced American society, scholars have been surprised by the persistence of religious identities in shaping the organization of society and the behaviors of individuals (Demerath 1968; Herberg 1967; Wuthnow 1976, 1989). Religion is typically studied as a separate subfield of sociology, but its important implications for stratification should not be ignored. Stratification researchers, on the other hand, focus on disparities in education and employment by race, social class, and gender, but often overlook other axes of stratification that shape the intergenerational transmission of social and economic opportunities. Like race/ethnicity, social class, and gender, religion is an important identity category for both individuals and groups. In the case of individuals, religious *denomination* is usually passed from parents to children and may shape shared outlooks and behaviors, or what Bourdieu refers to as *habitus* (Bourdieu 1985; Swidler 1986). At the group level, religious denomination has traditionally operated as an ascriptive category because it helps define the boundaries of group membership and is systematically associated with differential educational, economic, marriage, and fertility outcomes over the life course (Blackwell and Lichter 2004; Eggebeen and Dew 2009; Lehrer 2004; Lehrer and Chiswick 1993). However, while most ascriptive categories remain relatively fixed over the life-course, religion is also comprised of more fluid elements, which may or may not follow in line with denomination in serving as an axis of social stratification. Specifically, r*eligiosity*—or, the degree of conviction attached to particular values, orientation, and behaviors associated with a particular religious denomination or set of beliefs—may change for individuals as well as groups over time.

Religious behaviors and orientation particularly shift during the college years. College is a key ideological transition period as offspring leave home, are exposed to new ideas and often-times more secular environments than those in which they were raised, and adopt the religious behaviors and orientation that tend to persist into adulthood (Hodge, Johnson, and Luidens 1994; Myers 1996; Wilson and Sherkat 1994). Religiosity may at times parallel or intersect traditional ascription and identity categories—like race, class, and gender—in their systematic association with educational outcomes, like grade performance, that are predictive of later socio-economic outcomes. However, little research examines the role of intergenerational religious transmission, based on the *religiosity* of offspring, in shaping pathways to social mobility. The importance of religious change among the generation of students entering college today—and who will structure the social and religious values of American society when they assume leadership tomorrow—is further supported by research showing that cohort, rather than period, effects have the greatest impact on secularization (Ryder 1965). Whereas period effects often operate as short-lived "shocks" in a social system, cohort effects have a persistent influence on shaping ideology and behavior throughout a given age group's lifetime (Ryder 1965).

The emphasis placed on scientific rationalism, technological development, and the questioning of past "truths" is often greatest at the most highly-selective (or "elite") colleges and universities in the United States. In part, this is because elite institutions today center around a liberal arts curriculum, which focuses on critical reasoning skills and the questioning of established social norms, practices, and ideas—like those often taught through religion (Lee 2002). If religiosity—primarily measured through religious participation—is indeed on the decline among recent college cohorts, there are several reasons to believe the implications of religious declines would be the most far-reaching at *elite* colleges and universities. First, elite

colleges and universities—such as the Ivy League—tend to serve as trend-setters for the rest of higher education, meaning that a rise of secularism at elite schools may have a "trickle down" effect through the rest of higher education as institutions of lesser selectivity model their curricular and educational systems on those at the elite schools (Stevens, Armstrong, and Arum 2008). An increasingly secular environment at elite institutions is therefore likely to shape not only the future of elite higher education but, eventually, that of a wide range of post-secondary institutions around the country. Second, prior work using cross-sectional measures of religious participation posits that religiosity is associated with grade performance at elite institutions (Mooney 2010). Grade performance in college is in turn a key predictor of social mobility because grade-point average (GPA) is an important signal of on-time or eventual graduation, job prospects, and post-graduate education admission—each of which predict income and wealth in adulthood (Bowen and Bok 1998). Given the far-reaching nature of leadership taken on by students graduating from elite institutions, overall trends towards increasing or decreasing religiosity among recent cohorts graduating from elite institutions may have significant implications for the values that guide the social and economic future of American society (Putnam 2000).

Third, elite colleges and universities tend to actively recruit and then work hard to retain and graduate the best-qualified racial/ethnic minority and immigrant-background students, in part because of the educational benefits of racial/ethnic diversity, and in part because educating these students provides institutions an opportunity to change the face of America's future leaders across industries (Espenshade and Walton-Radford 2009; Stevens, Armstrong, and Arum 2008). In terms of the educational benefits of diversity, elite colleges in the United States have undertaken a social project of racial/ethnic, social class and, arguably, religious diversification

(Golden 2007; Karabel 2005; Omi and Winant 1994; Steinberg 1989).[i] As such, elite colleges are an important arena through which students meet and interact in sustained ways with people from different racial/ethnic, immigrant, social class, and religious backgrounds than their own. In terms of the second motivation of recruiting diversity, racial/ethnic minority and immigrant students graduating from elite institutions tend to be among the most highly-recruited into top leadership across the professions and industries. Significantly, racial/ethnic minority and immigrant students also tend to be among those whose ideological upbringings tend to be farthest from those most prominent at elite colleges—and who therefore have the potential to experience the most ideological/religious change during college.

SOURCES OF A POTENTIAL RELIGIOUS DECLINE AT ELITE COLLEGES AND UNIVERSITIES IN THE UNITED STATES

Interestingly, research shows many groups, such as Catholics, that have historically been educationally and socio-economically disadvantaged, particularly in terms of educational attainment, are now reaching parity with Protestants in America (Lehrer 1999). The decrease in differential educational and socio-economic attainment on the basis of religious *denomination* might be seen as an indication that religion is less-and-less a stratifying force in American society. However, other research shows that *religiosity*—based on service attendance and adherence to religiously-influenced values and belief systems—is in fact a stable force in American society, including among the cohorts entering adulthood today (Hout and Greeley 1987; Mooney 2010; Sherkat 1998). Still other research finds that religiosity is more so a function of age, income, marital status, parenthood, and so forth than it is a function of birth cohort (Iannaconne 1990; Chaves 1991; Stolzenberg, Blair-Loy, Waite 1995). Unlike those who view religiosity as stable within a given birth cohort, those favoring the life-cycle argument

suggest shifts in religiosity are associated with aging rather than to the result of lasting effects of changes that occur during the transition to adulthood. However, the debate over whether religiosity is inter-generationally transmitted or subject to life-cycle influences remains unresolved. Specifically, the role of religiosity and changes in religiosity at elite colleges in mediating between childhood and adult religiosity as well as later social mobility opportunities begs for further investigation.

Even if religious denomination is decreasing in its salience as a source of social stratification, but religiosity is alive and well in contemporary American society, albeit sensitive to life-cycle effects, few would debate that many of the changes in religiosity take place most markedly during the transition to adulthood, such as during the college years. Similarly, research suggests declines in religiosity are most marked among the pool of elite college goers who tend to come from families where parents are above-average in their adherence to secular (as opposed to religious) beliefs (Lee 2002; Mooney 2010; Myers 1996). Two primary unresolved questions, then, are: first, what are the magnitudes of declines in religious participation, broadly defined, among elite college goers during the transition to adulthood? And, second, what are the practical implications of declines in terms of educational achievement and opportunities for social mobility for students at elite colleges and universities, particularly those from racial/ethnic minority or immigrant backgrounds who tend to lack alternative pathways to upward mobility and for whom high educational performance is therefore a main gateway into high socio-economic attainment?

RELIGIOSITY AND SOCIAL MOBILITY AMONG RACIAL/ETHNIC MINORITIES AND IMMIGRANTS AT ELITE COLLEGES

A large body of research discusses the prominence of religious socialization in supporting educational attainment, particularly among racial/ethnic minorities and immigrants (Ebaugh and Chafetz 2000; Hirschman 2004; Portes and Rumbaut 2001, 2006). By extension, it is likely that religiosity plays an important role both in defining the values and behaviors of racial/ethnic minorities and immigrants when they arrive on elite college campuses. Facing the challenges of acclimating to historically white, Protestant, elite college environments likely quite distinct from those in which they were raised, racial/ethnic and immigrant minority students may also turn to religious organizations for a sense of community. Religious communities may not only help combat a sense of social alienation that poses barriers to academic achievement, but may also channel religious racial/ethnic minority and immigrant students into a selected group of "good kids" who not only participate in religious activities, but who also avoid delinquent behaviors and prioritize studying and other activities that promote high academic achievement (Pearce and Haynie 2004; Regnerus 2003; Regnerus 2005). However, if racial/ethnic minority and immigrant students experience changes—particularly declines—in religiosity over their time in college, it is possible that changing religiosity may thwart other potentially "protective" effects of religiosity for academic performance once minority and immigrant students acclimate to their more-secular college environment and potentially adopt more secular orientation and behaviors, measured in part by declines in religious participation.

Wilson and Sherkat (1994) caution that students from highly-educated families may deviate from the belief systems they were taught in childhood more than students from families with less-educated parents because the former may encourage independent identity formation, viewing the development of critical and autonomous thinking more than conformity to parents' own belief systems. Because racial/ethnic minorities and immigrants are less-likely to come

from families with highly-educated parents, they may face the most turbulence in adjusting to a more-secular college environment that encourages critical thinking and analysis skills. Racial/ethnic minorities and immigrants may struggle not only in terms of situating their own religious orientation and beliefs but also navigating between parental expectations to conform to the religious orientation and behaviors with which they were raised and seeking acceptance and integration while acclimating to their typically less-religious mainstream college environment.

The issue of religious acclimation and change in college is of particular importance given that racial/ethnic minority and immigrant students already face higher barriers to academic success than white students (Bowen and Bok 1998; Espenshade and Walton-Radford 2009). If religiosity is associated with college performance even after accounting for differences in prior achievement, social class background, and other demographic factors, the extent to which racial/ethnic minorities and immigrants at elite colleges experience religious continuity from their childhood religious lives and the associations between their college religiosity and academic performance is of distinct importance to a range of scholars, including those concerned with the achievement gap in higher education, minority students' opportunities for social mobility, and religious inheritance or the intergenerational transmission of religiosity.

The degree to which the intergenerational transmission of religiosity takes form among the highly-select students at elite colleges is of great importance because elite colleges and universities overwhelmingly feed their graduates into America's top leadership positions across sectors, thus giving elite college graduates a uniquely powerful ability to influence the values that guide the future of American society. Furthermore, academically successful racial/ethnic minority and immigrant students at elite colleges and universities are particularly important because they are likely to be highly-recruited into top leadership positions as private companies,

government, and non-governmental organizations increasingly place a high premium on hiring diverse leaders. Therefore, to the extent religiosity is associated with performance in college and performance impacts future labor market and leadership opportunities, religiosity indirectly has the potential to inform the labor market opportunities open to elite college graduates as well as to shape the value-systems they bring with them into their companies and fields, especially when they reach positions of leadership and are confronted with the task of making decisions for their company's future (Bowen and Bok 1998). For example, among the already-select group of elite college students, grade performance remains a primary basis of assessment of future leadership potential because it guides later opportunities for post-graduate education, admission to the best law, business, and medical schools, and selection into the most prestigious post-graduate fellowships (an overwhelming number of Rhodes Scholars, for example, have come out of elite institutions and have gone on to adopt the highest leadership positions in the country) (Bowen and Bok 1998; Espenshade and Walton-Radford 2009). Earning prestigious post-graduate fellowships and graduate school degrees is, in turn, associated with later entrance into decision-making leadership positions. Undoubtedly, elite college graduates tend to help shape later generations' leadership across labor market sectors and industries in American society, and are likely to recruit like-minded people who share the same core religious and other values. Therefore, the religious orientation and beliefs of those succeeding at elite colleges is of interest to macro-level issues of social reproduction along lines of religiosity. If religiosity is a key predictor of grade performance, then religiosity may serve as a key factor in shaping the labor market and later academic opportunities of racial/ethnic minorities and immigrants while also influencing the extent of racial/ethnic diversity in leadership positions across sectors of American society.

Contributions of the Present Study

Three elements of religiosity and grade performance are relatively understudied through the use of longitudinal data among elite college students. First, we are limited in our knowledge of the influence of religiosity on grade attainment particularly for minority and immigrant students at elite colleges—specifically, whether religiosity is a protective factor or disruptive factor for college performance for groups that experience large achievement gaps compared to white students, even when controlling for a host of prior academic performance, social class, and other demographic characteristics. Second, both and within across racial/ethnic and immigrant groups, we know little about the changing nature of religiosity over time in college, due in large part to a lack of longitudinal measures of religiosity, and its associations with performance at various time points during the college process. Third, many studies rely on models that, although containing measures of religiosity during the college ages, lack information on an important causally-prior determinant of college religiosity: that of religiosity in childhood. To measure childhood religious factors accurately, we need measures of religious exposure in childhood from a variety of contexts, such as schools, peers, and parents.

This study remedies all three short-comings of prior research. First, it draws on a stratified random sample with roughly equal numbers of Asian, black, Hispanic, and white students, allowing for large enough sub-samples of minority students. Second, its longitudinal nature with measures of religious activity participation at the beginning as well as mid-way through college, allows for measures of changing religious participation in college. Third, in addition to multiple measures of religiosity during the college ages, this study also accesses measures of childhood religiosity such as religious school attendance, which assures regular exposure to religious service attendance, high school friends' emphasis placed on the importance

of religious participation, and measures of how important a college's religious environment was to the student and parents in the student's college decision.

Research Questions

Specifically, this study investigates the following questions: First, do students' religious orientation and behaviors in college mediate associations between pre-college (i.e. childhood and adolescent) religiosity and college grade performance? Second, do the paths between pre-college and college religious orientation and behaviors, change in religious participation, and college performance "work" the same way for Asian, black, Hispanic, and white as well as first and second generation and domestic students? In other words, how do the magnitudes and directions between the paths differ for students of various racial/ethnic and immigrant generation groups? Third, does increasing homogeneity driven by selection out of the pool of religiously-active college students over the first two years account for the "protective effect" of college religiosity on grade performance?

Figure 1 presents a conceptual model of the hypothesized paths through which pre-college religious factors shape college religious orientation and behaviors, changes in religious activity participation between the first and fourth semesters of colleges, and through which college religious orientation and behaviors and changes in religious participation predict two- and four-year college performance. The theory states that pre-college religious factors are positively associated with college religious orientation, in support of previous research showing some amount of the intergenerational transmission of religiosity (Myers 1996). Parents who raise their children in more religious family, school, and peer environments will increase offspring's likelihood of having higher degrees of religious orientation and behaviors in college. Similarly, offspring raised in more religious environments will also have greater acclimation to a

more-secular college environment, which will be accompanied by a greater likelihood of decreasing their frequency of religious activity participation between the first and fourth semesters of college as a result of competing demands from other social and academic activities and a desire to fit in with less-religious peers. However, to the extent certain students maintain above-average levels of religious orientation and behaviors during the first four semesters of college, higher levels of religious orientation and behaviors will have an overall "protective" effect through their positive association with grade-point over the critical adjustment to college period, which takes place over the first two years (or four semesters). Although students raised in more religious environments are most likely to decrease religious participation while adjusting to college, any decrease in religious activity participation is unlikely to be (negatively) associated with college performance. Even if religious participation itself decreases in college, the *values* underlying these offspring's childhood religiosity are likely to be more deeply-seated and picked up through the more holistic measures of religious orientation and behaviors.

[FIGURE 1 ABOUT HERE]

DATA AND ANALYTIC STRATEGY

Sample

The data used in this study are from the National Longitudinal Survey of Freshmen (NLSF), a stratified random sample of approximately 4,000 college students who entered 28 different selective, four-year colleges and universities throughout the U.S. in the fall of 1999. Students were interviewed in the fall of their first year to collect a retrospective history of their childhood social and educational experiences through high school and were then re-surveyed every spring, including the spring of their first year, with questions about their social and academic experiences in college. Among the 28 institutions in the survey, 4,573 randomly-

selected students were contacted to be interviewed, of which 3,924 completed the baseline face-to-face interview in the fall of 1999, yielding a response rate of 85.8 percent. Of the 3,924 contacted to complete the follow-up telephone interviews in the spring of 2000 and 2001, respective response rates were 96 percent and 90 percent. In the spring of 2002 and 2003, respective response rates were 87 percent and 80 percent. Approximately 40 percent of non-respondents in the last wave were drop-outs from college. The baseline and two follow up surveys from the spring of first and second years, respectively, are those used in the analysis based on two year grade-point average as the outcome, whereas all four follow-up surveys through the spring of senior year are used in the analysis based on four year grade-point. That the means from the post-imputation sample of respondents to the last follow-up survey in the spring of 2003 shown in Table 1 below do not differ noticeably from the means for the sample of respondents after the second follow-up in the spring of 2001 (available upon request) indicates limited bias on observable characteristics due to attrition during the two intervening years that differentiate the two year and four year samples. For example, at both time points, means for the four main components of religious behaviors and orientation remain stable. Among follow-up survey respondents, multiple imputation of 5 datasets is used to address item-missingness, yielding a two year sample of 3,497 students and a four year sample of 3,110 students. Analyses were also carried out using a Heckman selection correction to account for the unobservable characteristics of dropouts between waves. These results did not differ substantively from those without the correction (results available upon request). Tables 1 and 2 show percent missing on the dependent and primary predictor variables as well as the control variables, respectively. The percent missing statistics were constructed based on survey respondents from the last survey—

administered in the spring of 2003, the fourth year of college—with those to the first survey, administered in the fall of 1999.

Tables 1 and 2 also show descriptive statistics for the (non-interaction) variables used in the analysis. For parsimony, descriptive statistics show only the means and standard deviations over four years of college. The main difference between the two and four year means is in cumulative grade-point, with the average four year grade-point 0.14 points higher than the two year grade-point. Although the descriptive statistics and all results shown thereafter are post-multiple imputation, all models were run using the sample resulting from list-wise deletion as well as multiple imputation; results did not change substantively and are available upon request. In both Tables 1 and 2, the first three columns display the overall values aggregated across racial/ethnic and immigrant generation groups (along with percent missing on each variable, as discussed above). The remaining columns break down the overall sample into two sub-sets based on the primary categories examined throughout the study: the first displays means and standard deviations by race (Asian, black, Hispanic, white); the second by immigrant generation (first generation, second generation, and third generation or higher "domestic"). First generation immigrant students are defined as those students who are born outside the United States; second generation immigrants are those born in the U.S. but for whom at least one parent born outside the U.S., and; domestic students are those born in the U.S. along with both of their parents, but who may have had grandparents or earlier generations in their family born outside the U.S.

Due to the stratified nature of the random sampling design, the sample is fairly evenly divided between whites, Asians, blacks, and Hispanics. Non-immigrant background students comprise half of the sample, with first and second generation immigrants comprising 15 and 35 percent, respectively. Over 90 percent of Asians are first or second generation immigrants (31

and 64 percent, respectively), as are almost 70 percent of Hispanics (19 percent are first generation, and 49 percent are second). The majority of blacks in the sample are domestic, but almost a third of the black students are of immigrant backgrounds (9 percent are first generation, and 19 percent are second). Among whites, 85 percent are domestic, with 15 percent of immigrant background (4 and 10 percent are first and second generation, respectively). Stratifying the sample by immigrant generation, just under 50 percent of first generation immigrants are Asian, 30 percent are Hispanic, and 15 percent are black, and under 10 percent are white. A similar pattern exists among second generation immigrants, of whom almost a half are Asian, a third Hispanic, and just under one-sixth and one-tenth are black and white, respectively. Conversely, almost one-half and over one-third of domestic students are white and black, respectively; just under one-sixth are Hispanic, and the remaining 3 percent are Asian.

[TABLE 1 ABOUT HERE]

[TABLE 2 ABOUT HERE]

Males comprise 41 percent of the sample (see Table 2 below). At both two years and four years, Protestants comprise 38 percent of my sample, Catholics 33 percent, Agnostics 12 percent, Hindus, Jains, and Buddhists together comprise 7 percent, Jews 6 percent, and Muslims 2 percent. In terms of regional origins, approximately 20 percent of the sample is from the South (with an additional 5 percent from Texas). By comparison, 31 percent of Southerners were college aged (17-24 years of age) and enrolled at an undergraduate institution in 2008 (based on the IPUMS 2008 American Community Survey). Southerners comprise a smaller share of all students in my sample compared to the national average of potential college-goers.

Variables

The dependent variable in this study is grade performance. Two-year grade performance is measured by cumulative grade-point average (GPA) over the first four semesters of college. Four-year grade performance is measured by cumulative GPA over all eight semesters (four years) of college.

The primary predictor variable is a standardized religiosity index (mean 0, standard deviation 1, but on a 0-40 scale before standardization) comprised of four, equally-weighted measures, each using a Likert scale: Overall self-rated religiosity (0-10), self-rated observance of one's religious customs (0-10), religious service attendance frequency (0-10), and importance to college friends of respondent's participation in religious activities in the fourth semester (0-10). Specifically, respondents were asked to assess their: frequency of participation in religious activities during the first semester of college (ranging from "never" and "rarely" to "more than once per week"), self-rated religiosity in the first semester of college (on a scale from 0 to 10 where 0 is "extremely unreligious" and 10 is "extremely religious"), self-rated level of religious observance during the first semester of college (where 0 corresponds to "extremely unobservant of my religion's customs, ceremonies and traditions" and 10 corresponds to "extremely observant of my religion's customs, ceremonies and traditions"), and the respondent's assessment of how important it is to her/his college friends from the fourth semester that s/he participate in religious activities as of the fourth semester of college (on a scale from 0 to 10 where 0 corresponds to "not at all important" and 10 corresponds to "very important"). The Cronbach alpha for the index of religiosity is 0.80, indicating strong statistical cling between the indicators that comprise the index.[ii] Throughout this study, the four-item religiosity index is used to measure what I refer to as respondents' "religious behaviors and orientation".

The "change in college religious orientation and behaviors" variable is constructed to measure changes in respondents' religious activity participation between the first and fourth semesters. Because the measure of religious activity participation in the first semester of college is based on a categorical variable for frequency of attendance, while the variable for religious activity participation in the fourth semester is a binary indicator for regular attendance/non-attendance, I created a new binary measure from the categorical measure of religious service attendance in the first semester of college to allow for a new variable measuring *change* in religious activity participation as the difference between the two. I classified those who responded that they attend religious services "often", "weekly" or "more than once per week" as "involved in a religious group" and those who attend "never" or "rarely" as not involved in a religious group.

Pre-college peer, school, and family religious behaviors and orientation are based on three measures: the importance to the respondent's high school friends that the respondent attend religious activities (using a 0-10 point Likert scale), an index of religious school attendance (0-3) based on whether a student attended a private, religious school in grade 1, 7, and/or 12, and the importance placed on one's college's religious environment in making the decision to attend.

I control for religious denomination and include interactions between the religiosity index and denomination in order to avoid mis-specification on the grounds that religious behaviors and orientation may have a different association with performance based on the denomination in which a child was born and raised. Religious denomination is modeled in seven categories: Catholic, Protestant, Jewish, Muslim, Hindu/Buddhist/Jain, Agnostic, and Other/don't know religion. A number of the models also include interactions between the religiosity index and religious denomination. I also include controls for family structure and values espoused in the

household while growing up. Similarly, prior high school performance and academic discipline and expectations are also important predictors of college academic achievement since earlier performance picks up differences in work ethic, intelligence, and other factors that are associated with performance across age and level of study. These four non-religious childhood and college factors include: Intended college major divided into four categories (sciences/math/engineering, social sciences, humanities, and other/don't know major) based on students' responses during the fall of the first year, before formal majors are declared in order to prevent reverse-causality issues with college two year grade-point, an index of self-discipline in high school (0-30), parents' opinion of the respondent's college or university (0-10), and respondents' assessment of parents and friends' expectations that s/he earn good grades in college (0-10). The index of self-discipline (0-30) is based on three, equally-weighted measures including the number of hours spent on the following activities during the typical seven-day week: watching television during respondents' senior year of high school (reverse-coded so larger numbers correspond to less television time), playing video games during respondents' senior year of high school (also reverse-coded), and studying during respondents' second semester of college (0-120; scaled to match the 0-10 scale of the other two items).

Measures of family structure include: number of siblings, whether or not both parents live at home, the average number of hours the mother was employed outside the home during the typical seven-day week during the respondent's senior year of high school, and parental strictness. Previous work shows family structure—one versus two-parent households, for example—is predictive of offspring's educational attainment (McLanahan 1985). Children from two-parent families are more likely to complete high school than those from single-parent families, in large part because of the economic deprivation associated with having a single bread-

winner (McLanahan 1985). Families that adhere to traditional belief and value systems—such as conservative Protestants or sectarian groups that follow direct teachings of religious texts regarding gender roles within families—are more likely to have larger families with above-average numbers of children compared to other less-traditionally-minded religious groups (Massengill 2008).

Controls for parental strictness help account for the possibility that there is a positive association between strict child-rearing styles, traditional values, and high levels of parents' religious values, such that there is a stigma associated with divorce and out-of-wedlock child-bearing (Wilcox 1998). If stricter parents are more likely to remain married, the presence of a traditional, two-parent family in childhood may be associated with improved child well-being and the presence of a parent, usually the mother, who engages expressive-emotional parenting and with high levels of discipline in a way that positively orients children to school achievement (McLanahan 1985; Wilcox 1998). As a result, children raised with strict parenting styles may also fare better in college academic performance than students raised in families with less-strict parenting styles. Parental strictness is based on the earliness of the respondent's curfew on weeknights during senior year of high school (no curfew coded as 0, which is most lenient, whereas 10 corresponds to not being permitted out on week nights) and earliness of curfew on weekends during senior year of high school (using same scale as week night curfew).

Other demographic controls include: race, immigrant generation, gender, prior academic achievement, family social class based on parents' highest degree attained the percent of college paid for by one's parents, and the respondent's number of siblings, and measures of one's racial environment and region growing up. In addition, I include various interactions between Protestant and neighborhood racial environment, region, and social class in order to pick up any

differential effects on performance for the subset of Protestants who come from conservative Protestant backgrounds (Moore and Ovadia 2006). Conservative Protestants are known to adhere to religious practices and perspective quite distinct from mainline Protestants, thus potentially driving results that may otherwise be atypical for most Protestant groups. Family social class is measured based on parents' highest level of educational attainment and the percent of college paid for by parents. Race/ethnicity is broken down into four groups: white, black, Asian, and Hispanic. Immigrant generation is divided into three categories: first generation (respondent was born outside the United States), second generation (respondent was born in the United States but at least one parent was born outside the United States), and third generation or earlier 'domestic' (respondent and respondent's parents were both born in the United States). Finally, high school performance is also likely to be correlated with primary predictors of religious behaviors and orientation, including proposed college major, high school peers' and parents' emphasis on religion, and family social class while children were growing up—all shown in Table 1. High school performance is measured by high school grade-point, the number of Advanced Placement courses taken in high school and SAT score.

Analytic Strategy

This paper uses two types of path analysis, both using maximum likelihood estimation to model path dependencies by estimating regression coefficients between the hypothesized paths with robust standard errors clustered by university (see Bollen 1989). The regression paths are estimated between single measures, each of which may consist of a summed index or categorical, continuous, or binary variable. For purposes of the research questions presented here, path analysis offers at least three key points of leverage over ordinary least squares (OLS) regression techniques: First, path analysis allows for simultaneous modeling of multiple dependent

variables arranged into time-dependent paths (OLS regression, on the other hand, handles only one dependent variable at a time, therefore requiring multiple regressions to model dependencies that operate linearly over time); second, path analysis allows for the estimation of error correlations between variables not directly estimated by regression paths in order to test whether relationships between variables may operate through paths not posited by the proposed hypothesis or theory (OLS regression does not allow for direct estimation of error correlations), and; third, multiple group path analysis allows the data to be stratified by sub-groups within the sample and the hypothesized paths and error correlations to be simultaneously modeled separately for each of the sub-groups (the closest approximation in OLS regression comes through the use of interaction terms to measure differential effects by sub-group, but even so does not allow for the modeling of any, much less separate, error correlations between variables not directly estimated by regression paths) (see Bollen 1989). In other words, multiple group path analysis allows for testing of whether the hypothesized paths "work" the same way for each of the sub-groups of primary interest within the sample.

In this study, the hypothesized regression paths and error correlations between pre-college, college, and changes in college religiosity and two- as well as four-year academic grade performance are first estimated using a single group path analysis, operationalized through the path model shown in Figure 2. In Figure 2, each of the boxed variables represents one of the (categorical, indexed, binary, or continuous) constructs mentioned above. Black arrows between these constructs represent estimated regression paths that fit within the hypothesis tested in this paper. Dotted lines represent other estimated regression paths that do not fall within the tested hypothesis, but which are estimated in order to serve as "checks" that the association between constructs in fact operate through the hypothesized paths. Each construct shown Figure 2 is also

regressed on all control variables shown in Table 2, as well as the interaction controls mentioned in the variables section above (and noted in the notes section of Figure 2). Single group path analysis tests if all students, on average when aggregated across race/ethnic and immigrant groups, "experience" the associations between religiosity and college performance through the paths shown in Figure 2. Upon finding support for the hypothesized associations between religiosity and college performance shown in the conceptual model of Figure 1 and operationalized through the path diagram (Figure 2), the next step in addressing research question two is to examine whether the paths shown in Figure 2 "work" the same way for each race/ethnic and immigrant group. To this end, I use multiple group path analysis to estimate the model corresponding to the path diagram shown in Figure 2 once for each racial/ethnic group (a total of four models estimated simultaneously as a result of stratifying the full sample by race/ethnicity) and again for each immigrant generation group (a total of three models estimated simultaneously as a result of stratifying the full sample by immigrant generation). The result is separate regression coefficients, standard errors, and error correlations for each sub-group (Asian, black, Hispanic, and white, or first generation, second generation, or domestic) estimated through two separate models.

[FIGURE 2 ABOUT HERE]

In all models, clustering of standard errors is used to account for similarities among students from the same college or university who may resemble one another more than their peers from other institutions. Although the twenty-eight universities in the sample are similar in many respects—all are four-year, selective residential colleges or universities—the institutions vary in terms of size, selectivity, and student body racial/ethnic, socio-economic and geographic composition, among other less-observable characteristics. All models were fit using both the

sample resulting after multiple imputation of five datasets in order to deal with item-missingness and the sample resulting from list-wise deletion (i.e. case deletion) of all cases with missing items. Substantive results did not change between samples and are available upon request. Finally, a Heckman selection correction was fit in order to deal with the attrition of approximately 316 (40 percent) of the total 790 non-respondents between the first and last waves of the survey/interview between 1999 and 2003. Results of the models did not change substantively based on whether or not the correction was used, indicating limited bias in the pattern of attrition from the sample.

RESULTS

Descriptive Results

Overall, there are few noticeable differences in the means of the key dependent and predictor variables shown in Table 1 by race/ethnicity or immigrant generation. Of the few noticeable differences, we see that blacks and domestic students tend to be the most religious, based on their means for measures such as standardized religiosity index score, importance to their high school friends that they participate in religious activities, and the importance of their college's religious environment in making their decision to attend that institution. However, there does not seem to be a strong association between heightened religiosity and higher overall academic performance based on two- or four-year grade-point. If anything black and domestic students tend to earn grade-points that are lower, on average, than those of other race/ethnic or immigrant generation groups, respectively. Therefore, examination of the means does not point to a stronger correlation between religiosity and grades for any of the race/ethnic or immigrant sub-groups in these analyses.

Table 2 shows descriptive statistics for all of the (non-interaction) control variables used in the analysis. Overall, in terms of major, academic orientation, and family structure, the means of the control variables shown in Table 2 reveal many similarities between students across race/ethnic or immigrant groups, including in terms of certain aspects of college academic orientation like parental grade expectations, self-discipline, parents' college opinion, college major, and regional origin within the United States. However, where differences emerge by race/ethnicity or immigrant generation, Asian and white students and first and second generation immigrants, respectively, tend to share many similarities, as do blacks with Hispanics. For example, in terms of academic performance in high school, family structure (namely, both parents living at home and the number of hours the mother worked outside the home), family social class (based on parental educational attainment and percent of college paid for by family), and certain aspects of college academic orientation (college friends expecting good grades from the respondent and hours of extra-curricular activities per week), and neighborhood/school racial composition, means for Asians and whites and Hispanics and blacks, respectively, are quite similar.

Figure 3 shows the mean level of religious activity participation in the first and fourth semesters of college, by racial/ethnic and immigrant generation subgroups. Strikingly, there are pronounced decreases over the first two years of college in the proportion of students who "regularly" attend religious activities. Overall and across subgroups, the proportion of students who regularly participate in religious activities decreases by at least 50 percent between the first and fourth semesters of college.

[FIGURE 3 ABOUT HERE]

Path Dependencies between Childhood and College Religious Orientation and Behaviors and College Performance

The first model in Table 3 displays the results of the single group analysis, which I refer to as the "overall model", in which all students are aggregated and modeled as one group. The second and third models report results from each multiple group analysis (stratified first by race/ethnicity and a second time by immigrant generation). The second model in Table 3 displays results from a multiple group analysis in which Asian, black, Hispanic, and white students are modeled as four separate groups within one multiple group model. The third model in Table 3 displays results for a multiple group model consisting of first generation, second generation, and domestic student sub-groups. Each model in Table 3 displays the direction, magnitude, and significance of the relationships between pre-college religiosity and college religiosity, pre-college religiosity and changes in religious participation between the first and fourth semesters of college, college religiosity and two-year grade-point, changes in religious participation and two-year grade-point, and two-year grade-point and four-year cumulative grade-point.

[TABLE 3 ABOUT HERE]

The most important finding from Table 3 is highlighted in Figure 4. Overall, each of the hypothesized paths shown in the conceptual model in Figure 1 is statistically significant and follows the direction posited in the conceptual model. Similarly, none of the paths estimated as "checks" on the model (represented by dotted lines in the path diagram of Figure 2) are significant, lending further support to the integrity of the conceptual model as hypothesized. For parsimony given the robustness of the paths shown in the conceptual model, Figure 4 shows results of the single group analysis, aggregating results across racial/ethnic and immigrant

groups. "E" stands for the expected direction of a given association, while "O" represents the overall results, across groups. A positive (+) sign next to an "E" or "O" indicates a statistically significant positive direction of a path, a negative (-) sign represents a statistically significant negative direction of a path, and a "0" represents a statistically zero association.

[FIGURE 4 ABOUT HERE]

For ease of identifying patterns among subgroups in the multiple group analyses, Figure 5 modifies Figure 4 by adding the direction of significant regression paths for each of the racial/ethnic and immigrant subgroups to the expected (i.e. hypothesized) results and overall aggregated results. In addition to "O" representing overall results from the single group analysis, "1", "2", and "3" represent the direction of results for first generation immigrants, second generation immigrants, and domestic students, respectively. Similarly, "A", "B", "H", and "W" stand for Asian, black, Hispanic, and white, respectively.

[FIGURE 5 ABOUT HERE]

Family, School, and Peer Religious Context Growing Up and College Religious Orientation

The path between pre-college and college religious orientation and behaviors is of large and highly-significant magnitude overall and for each sub-group. Between two average individuals, the one who falls one-unit above the other in his/her pre-college family, school, and peer religious influences is associated with a GPA that on average falls roughly .5 standard deviations above the other in degree of college religious orientation and behaviors. The paths between pre-college religiosity and 2-year as well as 4-year grade performance are, on average and net of controls, non-significant overall and for individuals from each racial/ethnic and immigrant generation subgroup.

The "Effects" of College Religious Orientation and Behaviors on College Performance

Across groups and net of controls, a student who falls one standard deviation above the mean in their level of college religious orientation and behaviors on average experiences a .02 point increase in 2-year GPA relative to a student at the mean for college religious orientation and behaviors. The magnitude of the association is largest for Hispanics, for whom a student one standard deviation above another in college religious orientation and behaviors is associated with a .14 point increase in 2-year GPA—twice that for Asians, over three times as large as that for blacks, and almost seven times greater than that for whites, on average. Among immigrants, the 2-year GPA payoff for the student who is one-unit above another in her or his level of college religious orientation and behaviors is largest for first generation immigrants, for whom a one standard deviation increase above the mean in college religious orientation and behaviors is associated with a .11 point higher 2-year grade-point compared to another first generation immigrant with the same background characteristics but one unit lower level of college religious orientation and behaviors. The magnitude of the association between college religious orientation and behaviors and 2-year GPA is over 21 times as large for a first generation student who falls one standard deviation above the mean in college religious orientation and behaviors than for a comparable student who is a second generation immigrant or a domestic student. Although the path between college religious orientation and behaviors and 4-year GPA is not significant, the path between 2-year GPA and 4-year GPA is highly-significant and of large magnitude overall and for each racial/ethnic and immigrant sub-group, on average and net of controls. The strength of the association between college religious orientation and behaviors, 2-year GPA, and 4-year GPA points to the existence of an important path dependency between religious orientation and behaviors from college (influenced by those from childhood) and lasting associations with grade performance through all four years of college. Taken together,

the significant paths between pre-college religiosity and college religious orientation and behaviors, college religious orientation and behaviors and 2-year GPA, and 2-year GPA and 4-year GPA accompanied by non-significant paths directly between, for example, pre-college religiosity and 2- or 4-year GPA point to the robustness of the hypothesized mechanism and the mediating effects of the religious orientation and behaviors developed in college in shaping college academic achievement.

Are the "Effects" of Religious Orientation and Behaviors Driven by Decreasing Religiosity Over Time in College?

Examining the association between childhood religiosity and *changes* in frequency of participation in religious activities during college, Table 3 and Figure 4 indicate, net of controls, the more religious a student before arriving to college, the more likely she or he is to participate in religious activities at the start of college but to cease participation by the fourth semester. Specifically, between two comparable students, the one who falls one-unit higher than the other in pre-college religious influences is associated with an average 12.8 percent increase in the probability that the student ceases religious participation by the fourth semester if she or he participated religiously in the first. Alternatively, the more religious a student was before college, the lower her or his probability of being a stable non-participant in both the first and fourth semesters. There is no association between pre-college religiosity and initiating religious participation between the first and fourth semesters if one did not participate in the first semester.

Examining associations by sub-group, Table 3 and Figure 5 show that, between two comparable students from any racial/ethnic or immigrant subgroup, the student who is one-unit higher in her or his level of pre-college religious influence does not experience significant increases in religious participation between the first and fourth semesters compared to the

student one unit lower in her or his level of pre-college religious influence. The single exception to this occurs between two comparable domestic students, for whom falling one-unit higher that her or his counterpart in pre-college religious influence is associated with a significant, positive increase in the probability of initiating religious participation between the first and fourth semesters of college. On the other hand, between two average individuals from any racial/ethnic and immigrant sub-group, the one who falls one-unit higher in pre-college religious influences is on average associated with a significant *decrease* in the probability of not participating religiously in either the first or the fourth semesters of college. Between two comparable students, the one who falls one-unit higher in pre-college religiosity on average has a significantly higher probability of participating religiously in the first but not fourth semester (i.e. "decreasing" her or his participation). Specifically, models 2 and 3 of Table 3 indicate the largest association between pre-college religiosity and decreasing religious participation occurs for the average white or Hispanic student who falls one-unit higher than a counterpart from the same racial/ethnic group who shares the same background characteristics. On average and net of controls, an average white or Hispanic student's probability of ceasing religious participation increases by 20.0 and 17.2 percent, respectively for a student one unit higher in pre-college religiosity. These probabilities are more than twice as large as for Asians and blacks. Among immigrants, between two comparable first generation immigrants, the one who is one-unit higher in pre-college religiosity is significantly more likely to cease religious participation, with a one-unit increase in pre-college religiosity associated with a probability of decreasing frequency of participation by 18.6 percent. Comparatively, this first generation immigrant is followed by a domestic student with otherwise similar characteristics, for whom falling one-unit above an otherwise similar domestic student is associated a 13.6 percent probability of ceasing religious

participation in college. Between two otherwise similar second generation immigrants, the one who falls one unit higher than the other in pre-college religiosity has, on average and net of controls, the lowest probability (8.5 percent) of ceasing religious participation relative to similarly-religious first generation or domestic students.

[NOTE: I still need to finish writing the results.]

DISCUSSION AND CONCLUSION

This study documents a lasting association between religiosity and college performance as students acclimate to their elite college environment. Furthermore, it highlights the changing nature of religiosity over the college years, which has important implications for the intergenerational transmission of religious beliefs and orientation as students enter adulthood and form their own families. The lasting associations or path dependencies created by religiosity in college and later academic performance at elite colleges not only influence individuals' social, economic, and labor market opportunities; these associations also have the ability to influence—at a more systematic level—the types of values of those who shape the future of the country *and* the ability of underrepresented minority and immigrant groups with elite college degrees to earn the grades necessary to gain admission to top leadership positions in the United States. Elite colleges particularly support the upward mobility of underrepresented minorities, immigrants, and students from low socio-economic backgrounds for whom an elite college degree may serve as their primary pipeline into positions of influence and general upward social mobility. These students also tend to be those who are most religious coming into college (CITE) *and* who face the highest barriers to successful grade performance—as attested to by the persistent achievement gap in college academic performance between underrepresented minorities, immigrants, and *equally-qualified* whites, particularly at elite colleges. The achievement gap is

of critical importance given that college grades are a key predictor of college completion and later socio-economic attainment (CITE).

Although religious orientation and behaviors are not associated with performance through all four years of college, the lasting importance of students' religious orientation and behaviors during the first two years of college comes in at least three forms: First, it is during the first two years of college that students are most vulnerable to attrition or maladjustment (such as through their engagement in deviant behaviors like drinking and partying) (Bowen and Bok 1998; Regnerus 2003; Regnerus 2005). Second, religious orientation and behaviors during the first two years are likely to set up important path dependencies that enable higher performance during the last two years of college, which are not to be overlooked or undervalued. In other words, higher levels of religious orientation and behaviors during the first two years of college may facilitate (for example, through their correlation with) students' engagement in high-performance supporting behaviors such as associating with other "good kids" who prioritize studying and academic achievement (CITE REGNERUS). Third, the "protective effects" of religiosity for academic achievement are most pronounced for racial/ethnic minorities (including black, Asian, and most saliently, Hispanic students) and first and (to a lesser extent) second generation immigrant. Finally, the association between pre-college and college religious orientation and behaviors and college grade-performance is *not* driven by decreasing religious participation among students over the course of their acclimation to their elite (and generally highly-secular) college environment.

[NOTE: I still need to finish the discussion section.]

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TABLE 1. MEANS OR PROPORTIONS & STANDARD DEVIATIONS OF DEPENDENT & PRIMARY PREDICTOR VARIABLES (WITH PERCENT MISSING), BY RACE & IMMIGRANT BACKGROUND

	Overall			Asian		Black		Hispanic		White		First		Second		Domestic	
Variable	Mean	SD	% Miss[2]	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
COLLEGE GRADE PERFORMANCE																	
2-Year Cumulative G.P.A.	3.21	0.48	1.63	3.34	0.43	3.03	0.48	3.18	0.47	3.39	0.41	3.24	0.45	3.26	0.46	3.22	0.48
4-Year Cumulative G.P.A.	3.31	0.40	4.40	3.42	0.36	3.12	0.41	3.28	0.38	3.44	0.35	3.32	0.39	3.34	0.38	3.29	0.42
COLLEGE RELIGIOUS BEHAVIOR AND ORIENTATION																	
Standardized Religiosity Index[1]	0.00	1.00	11.20	-0.08	0.98	0.32	0.97	-0.11	0.98	-0.20	0.99	-0.11	0.98	-0.05	1.00	0.04	1.00
Observant of religious customs (0-10)	5.41	2.76	11.20	5.20	2.68	6.15	2.63	5.26	2.79	4.92	2.81	5.16	2.74	5.32	2.76	5.51	2.78
Attend religious services (0-10)	5.30	2.16	11.20	2.60	1.11	2.90	1.09	2.56	1.07	2.52	1.03	2.56	1.08	2.61	1.08	2.70	1.09
Self-rated religiosity (0-10)	5.36	2.78	11.20	5.04	2.67	6.25	2.55	5.19	2.82	4.95	2.85	5.04	2.79	5.24	2.77	5.55	2.76
Importance to College Friends of My Attending Religious Activities (0-10)	3.88	2.68	2.30	3.93	2.70	4.60	2.86	3.53	2.54	3.44	2.33	3.75	2.68	3.85	2.68	3.95	2.63
CHANGE IN COLLEGE RELIGIOUS ACTIVITY PARTICIPATION BETWEEN FIRST AND FOURTH SEMESTERS																	
Increase in Participation	0.03	0.17	11.20	0.04	0.20	0.02	0.14	0.03	0.16	0.03	0.17	0.05	0.21	0.03	0.16	0.03	0.17
Stable Non-Participation	0.47	0.50	11.20	0.47	0.50	0.37	0.48	0.50	0.50	0.53	0.50	0.48	0.50	0.48	0.50	0.45	0.50
Decrease in Participation	0.32	0.47	11.20	0.29	0.45	0.38	0.49	0.33	0.47	0.29	0.45	0.32	0.47	0.32	0.46	0.33	0.47
Stable Participation	0.18	0.38	11.20	0.20	0.40	0.23	0.42	0.15	0.35	0.15	0.36	0.16	0.37	0.18	0.38	0.19	0.39
PRE-COLLEGE FAMILY, PEER, AND SCHOOL RELIGIOUS FACTORS																	
Importance to H.S. Friends of Attending Religious Activities (0-10)	1.89	0.91	0.00	1.82	0.87	2.15	0.98	1.79	0.88	1.76	0.86	1.81	0.89	1.79	0.87	1.96	0.94
Religious School Attendence Index (Sum proportion attending at age 6, 13, or 17) (0-3)	0.49	0.92	0.00	0.33	0.78	0.49	0.87	0.68	1.05	0.40	0.87	0.41	0.82	0.51	0.95	0.47	0.89
Attended Private, Religious School-Age 6	0.18	0.38	0.00	0.13	0.34	0.18	0.39	0.25	0.44	0.14	0.35	0.17	0.37	0.19	0.39	0.17	0.38
Attended Private, Religious School-Age 13	0.16	0.37	0.00	0.10	0.29	0.16	0.37	0.23	0.42	0.13	0.34	0.14	0.34	0.17	0.37	0.15	0.36
Attended Private, Religious School-Age 17	0.15	0.35	0.00	0.10	0.30	0.15	0.35	0.20	0.40	0.13	0.33	0.11	0.31	0.15	0.36	0.15	0.35
Importance of College Religious Environment in College Decision (0-10)	2.24	2.78	0.03	2.18	2.78	2.79	2.94	1.82	2.55	2.03	2.73	1.96	2.68	2.11	2.75	2.36	2.83
N	3110			770		804		724		812		480		1075		1555	

[1]The religiosity index (standardized; originally 0-30) is comprised of four, equally-weighted measures: Overall self-rated religiosity (0-10), self-rated observance of one's religious customs (0-10), religious service attendence frequency (0-10), and importance to college friends of respondent's participation in religious activities in the fourth semester (0-10).

[2]Multiple imputation of 5 datasets addresses item non-response. Reporting 4-year means after multiple imputation. 4-year means do not differ significantly from 2-year means even though follow-up survey non-respondents are eliminated from the analysis. 2-year means are available upon request.

TABLE 2. MEANS OR PROPORTIONS & STANDARD DEVIATIONS OF CONTROL VARIABLES WITH PERCENT MISSING, BY RACE AND IMMIGRANT BACKGROUND

	Overall			Asian		Black		Hispanic		White		First		Second		Domestic	
Variable	Mean	SD	% Miss[3]	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Intended College Major (Freshman year)																	
Science/Math/Engineering	0.19	0.39	0.00	0.12	0.32	0.08	0.27	0.08	0.28	0.09	0.29	0.09	0.29	0.11	0.31	0.08	0.28
Social Science	0.15	0.36	0.00	0.05	0.22	0.05	0.22	0.06	0.23	0.07	0.25	0.05	0.22	0.05	0.22	0.06	0.24
Other/Don't Know Major	0.64	0.48	0.00	0.25	0.44	0.20	0.40	0.27	0.44	0.31	0.46	0.26	0.44	0.26	0.44	0.26	0.44
Humanities	0.04	0.20	0.00	0.02	0.14	0.01	0.11	0.01	0.12	0.01	0.12	0.02	0.12	0.02	0.13	0.01	0.12
College Academic Orientation																	
Self-Discipline Index (0-30)[1]	20.17	1.68	5.10	20.34	1.53	19.77	1.90	20.28	1.58	20.51	1.37	20.32	1.64	20.30	1.57	20.14	1.67
Parents' Opinion of College (0-10)	5.28	3.05	5.10	5.71	2.93	5.12	3.24	4.87	3.21	5.45	4.20	5.43	3.13	5.34	3.08	5.22	3.78
Parents Expect Me to Receive Good Grades in College (0-10)	8.19	1.89	5.10	8.52	1.63	8.52	1.92	8.00	1.98	7.57	1.82	8.54	1.84	8.33	1.80	7.90	1.93
College Friends Expect Me to Receive Good Grades in College (0-10)	7.70	1.89	5.12	7.50	1.84	8.10	1.94	7.72	1.88	7.33	1.81	7.77	1.96	7.67	1.87	7.63	1.88
Hrs. Extracurriculars/Wk-2nd Semester (0-120)	5.29	8.33	5.12	4.19	7.90	6.85	9.22	6.38	8.52	3.83	7.11	5.92	8.37	4.83	7.72	5.42	8.69
High School GPA (0-4)	3.72	0.33	0.38	3.81	0.29	3.61	0.34	3.73	0.32	3.80	0.26	3.74	0.32	3.76	0.29	3.72	0.33
No. AP Exams Taken in High School (0-10)	3.39	2.17	0.00	4.24	2.20	2.68	1.95	3.30	2.14	3.60	2.06	3.52	2.17	3.90	2.23	3.12	2.05
Family Structure																	
Parental Strictness Index in H.S. (0-50)[2]	6.67	3.90	0.59	6.75	4.10	6.96	3.98	6.64	4.04	6.59	3.58	6.68	4.31	6.81	4.00	6.71	3.75
Mom and Dad Both Lived at Home in H.S.	0.72	0.45	2.27	0.86	0.35	0.53	0.50	0.69	0.46	0.81	0.40	0.74	0.44	0.78	0.42	0.67	0.47
Number of Siblings (Excluding Respondent)	1.04	1.00	0.03	0.94	0.92	1.04	1.04	1.07	1.05	1.03	0.96	1.03	1.09	1.03	1.00	1.00	0.96
No. Hours Mom Employed Outside Home	20.18	1.68	0.00	28.89	21.87	36.80	17.00	30.21	19.21	27.95	18.31	28.00	20.99	30.52	20.44	32.26	18.12
DEMOGRAPHIC CHARACTERISTICS																	
Catholic	0.33	0.47	0.00	0.17	0.38	0.18	0.38	0.69	0.46	0.30	0.46	0.34	0.47	0.39	0.49	0.28	0.45
Protestant	0.38	0.49	0.00	0.26	0.44	0.69	0.46	0.14	0.35	0.39	0.49	0.23	0.42	0.25	0.43	0.51	0.50
Jewish	0.06	0.23	0.00	0.01	0.09	0.01	0.10	0.05	0.21	0.17	0.37	0.04	0.21	0.04	0.20	0.08	0.27
Muslim	0.02	0.14	0.00	0.06	0.23	0.02	0.14	0.00	0.04	0.00	0.06	0.04	0.20	0.03	0.17	0.01	0.09
Hindu, Buddhist, or Jain	0.07	0.25	0.00	0.26	0.44	0.01	0.10	0.01	0.10	0.00	0.06	0.13	0.34	0.14	0.34	0.01	0.08
Other/Don't Know Religious Affiliation	0.01	0.11	0.00	0.00	0.04	0.02	0.14	0.01	0.10	0.02	0.13	0.01	0.08	0.01	0.09	0.02	0.13
Agnostic	0.12	0.33	0.00	0.23	0.42	0.06	0.25	0.09	0.29	0.12	0.32	0.19	0.39	0.14	0.35	0.10	0.30
Asian	0.25	0.43	0.00	--	--	--	--	--	--	--	--	0.49	0.50	0.45	0.50	0.03	0.17
Black	0.27	0.44	0.00	--	--	--	--	--	--	--	--	0.15	0.35	0.14	0.35	0.38	0.48
Hispanic	0.23	0.42	0.00	--	--	--	--	--	--	--	--	0.29	0.45	0.33	0.47	0.15	0.36
White	0.25	0.43	0.00	--	--	--	--	--	--	--	--	0.07	0.26	0.08	0.27	0.45	0.50
First Generation Immigrant	0.15	0.36	0.00	0.31	0.46	0.09	0.28	0.19	0.39	0.04	0.20	--	--	--	--	--	--
Second Generation Immigrant	0.34	0.47	0.00	0.64	0.48	0.19	0.39	0.49	0.50	0.10	0.31	--	--	--	--	--	--
Third Generation or Earlier 'Domestic'	0.50	0.66	0.00	0.06	0.23	0.73	0.45	0.32	0.47	0.85	0.35	--	--	--	--	--	--
Male	0.41	0.49	0.00	0.43	0.50	0.33	0.47	0.41	0.49	0.47	0.50	0.40	0.49	0.42	0.49	0.40	0.49
Two Parents Advanced Degree	0.26	0.44	0.00	0.29	0.45	0.19	0.40	0.19	0.39	0.37	0.48	0.22	0.41	0.28	0.45	0.27	0.44
One Parent Advanced Degree	0.28	0.45	0.00	0.32	0.47	0.24	0.43	0.26	0.44	0.33	0.47	0.28	0.45	0.31	0.46	0.27	0.45
Two Parents B.A. or Equivalent	0.12	0.33	0.00	0.15	0.36	0.11	0.31	0.09	0.29	0.12	0.32	0.16	0.37	0.09	0.29	0.12	0.33
One Parent B.A. or Equivalent	0.12	0.33	0.00	0.09	0.28	0.16	0.37	0.15	0.35	0.09	0.28	0.10	0.30	0.11	0.31	0.13	0.34
Both Parents Less than B.A.	0.22	0.43	0.00	0.15	0.36	0.29	0.46	0.30	0.46	0.10	0.30	0.25	0.43	0.21	0.41	0.20	0.40
Percent of College Paid for by Parents	0.55	0.44	0.00	0.68	0.49	0.37	0.34	0.48	0.44	0.68	0.40	0.50	0.38	0.61	0.51	0.53	0.40
Avg. Neighborhood % Black or Hispanic (0-100)	28.94	28.61	2.10	14.24	13.71	50.39	30.06	37.48	31.04	12.24	12.44	32.16	30.30	25.65	26.12	29.28	29.12
Avg. School % Black or Hispanic (0-100)	29.84	25.49	3.32	18.20	14.34	44.29	27.33	38.40	28.68	17.44	14.95	33.92	29.03	27.37	23.58	29.51	24.96
South	0.21	0.41	0.00	0.22	0.42	0.26	0.44	0.15	0.36	0.19	0.39	0.23	0.42	0.19	0.40	0.21	0.41
Texas	0.05	0.22	0.00	0.05	0.21	0.04	0.20	0.09	0.28	0.03	0.18	0.03	0.17	0.06	0.24	0.05	0.22
North	0.74	0.81	0.00	0.73	0.44	0.70	0.46	0.76	0.43	0.78	0.42	0.75	0.44	0.74	0.44	0.74	0.44
N	3110			770		804		724		812		480		1075		1555	

[1]The index of self-discipline (0-30) is based on three, equally-weighted measures from typical 7-day week: hours of television senior year (reverse-coded), hours of video games senior year (also reverse-coded), and hours studying in respondent's second semester of college (0-120, but scaled to match the 0-10 scale of the other two items).

[2]The index of parental strictness is based on two, equally-weighted measures during senior year of high school: earliness of curfew on weeknights (no curfew coded as 0, which is most lenient, whereas 10 corresponds to not being permitted out on week nights) and earliness of curfew on weekends (using same scale as week night curfew).

[3]Multiple imputation of 5 datasets addresses item non-response. Reporting 4-year means after multiple imputation. 4-year means do not differ significantly from 2-year means even though follow-up survey non-respondents are eliminated from the analysis. 2-year means are available upon request.

TABLE 3. RESULTS OF PATH ANALYSIS SHOWING RELATIONSHIPS BETWEEN PRE-COLLEGE, COLLEGE, & CHANGE IN COLLEGE RELIGIOSITY & 2-YEAR & 4-YEAR GRADE PERFROMANCE, BY RACE & IMMIGRANT BACKGROUND[1]

	(1) Single Group Analysis			(2) Multiple Group Analysis, by Race												(3) Multiple Group Analysis, by Immigrant Generation								
	Across Groups			Asian			Black			Hispanic			White			First			Second			Domestic		
Paths	B		SE	B		SE	B		SE	B		SE	B		SE	B		SE	B		SE	B		SE
Pre-College Religiosity[2] --> College Religiosity[3]	.535	***	.013	.499	***	.028	.521	***	.026	.543	***	.028	.600	***	.026	.495	***	.036	.529	***	.023	.546	***	.018
Pre-College Religiosity[2] --> 2-Year GPA	-.015		.021	-.074		.042	-.005		.042	.014		.048	-.001		.047	.092		.055	-.023		.037	-.054		.030
Pre-College Religiosity[2] --> 4-Year GPA	.018		.024	.018		.024	-.017		.025	.018		.026	.030		.023	.016		.036	.012		.019	.011		.017
College Religiosity[3] --> 2-Year GPA	.018	*	.007	.070	*	.031	.041	*	.019	.140	*	.062	.022	*	.010	.109	*	.048	.005	*	.002	.000		.040
College Religiosity[3] --> 4-Year GPA	-.030		.035	-.030		.035	-.041		.037	.010		.036	-.045		.029	.014		.048	-.030		.030	-.025		.021
2-Year GPA --> 4-Year GPA	.798	***	.008	.834	***	.015	.764	***	.016	.799	***	.015	.832	***	.013	.826	***	.019	.809	***	.012	.786	***	.011
Pre-College Religiosity[2] --> Increase in College Religious Activities[4]	.020		.019	.020		.039	.033		.038	-.045		.040	.031		.038	-.026		.052	.002		.032	.055	*	.028
Pre-College Religiosity[2] --> Stable Non-Attendance of College Religious Activities[4]	-.404	***	.016	-.330	***	.035	-.362	***	.033	-.375	***	.034	-.525	***	.029	-.314	***	.044	-.368	***	.028	-.445	***	.022
Pre-College Religiosity[2] --> Decrease in College Religious Activities[4]	.128	***	.019	.071		.040	.082	*	.038	.172	***	.038	.200	***	.036	.186	***	.048	.085	***	.032	.136	***	.027
Pre-College Religiosity[2] --> Stable Attendance of College Religious Activities	--			--												--								
Increase in College Religious Activities[4] --> 2-Year GPA	-.014		.018	.015		.040	-.003		.036	-.078	*	.039	.028		.038	-.016		.053	-.043		.031	.005		.024
Stable Non-Attendance of College Religious Activities[4] --> 2-Year GPA	-.067		.036	.006		.079	-.005		.063	-.232	**	.072	.012		.070	-.081		.090	-.170	***	.060	-.005		.047
Decrease in College Religious Activities[4] --> 2-Year GPA	-.027		.024	.005		.049	-.009		.046	-.096		.055	.008		.052	.006		.068	-.100	*	.043	.004		.032
Stable Attendance of College Religious Activities --> 2-Year GPA	--			--												--								
Increase in College Religious Activities[4] --> 4-Year GPA	-.016		.020	-.016		.020	.012		.021	.028		.021	-.016		.019	-.018		.029	-.023		.016	.029	*	.013
Stable Non-Attendance of College Religious Activities[4] --> 4-Year GPA	-.034		.036	-.034		.036	-.029		.038	.007		.044	-.010		.035	-.040		.047	-.035		.033	.017		.024
Decrease in College Religious Activities[4] --> 4-Year GPA	-.012		.025	-.012		.025	-.002		.027	-.007		.029	.007		.026	-.029		.036	-.037		.022	.025		.018
Stable Attendance of College Religious Activities --> 4-Year GPA	--			--												--								
N	3110			770			804			724			812			480			1075			1555		
Chi-squared (d.f.)	3863.54 (6)***			3904.81 (24)***												3877.30 (18)***								
RMSEA	.04			.04												.04								
CFI	.91			.92												.92								

***Significant at .001; **Significant at .01; *Significant at .05. Robust standard errors are clustered by university. Reporting standardized coefficients.

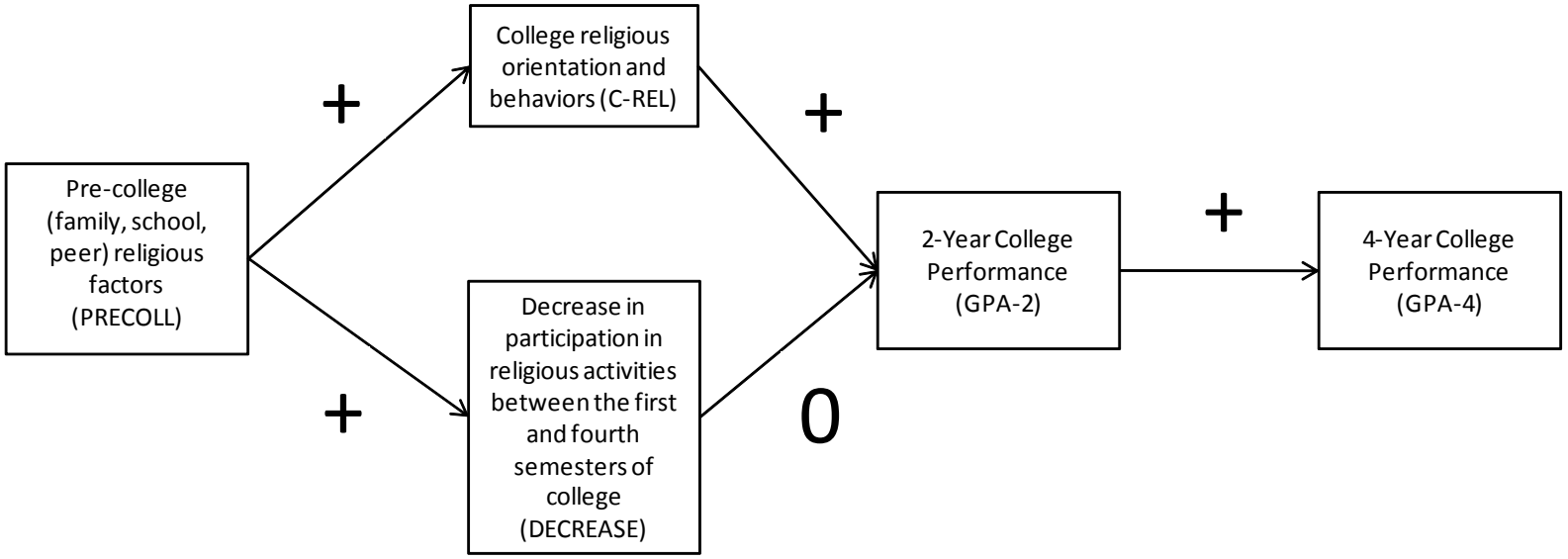
[1] All models include cntrols for gender, high school performance (grade-point and number of AP courses taken), social class (parental educational attainment, percent of college paid for by family, and neighborhood and school percent black or Hispanic while growing up), family structure (two-headed household growing up, number of siblings, number of hours mother employed outside house per week in high school), region, race or immigrant generation, religious denomination, college academic orientation (parental strictness growing up (index), self-discipline (index), proposed college major, parents' grade expectations, college friends' grade expectations, and hours of extra-curricular activities per week during first and second years of college) and interactions between Protestant and each of the following: region, number of siblings, percent of college paid for by family, and neighborhood/school racial composition. Multiple imputation of 5 datasets is used to deal with item non-response. A Heckman selection correction was used to deal with the 9% and 20% of survey non-respondents at 2-years and 4-years, respectively. Results did not change substantive findings and are available from the author upon request.

[2]The index of pre-college religiosity (0-10) is comprised of the sum of three, equally-weighted items: the importance placed on college religious environment in the student's college decision on a scale of 1-10, indicators of whether the student attended a religious school at ages 6, 13, and/or 18, and the importance of religious participation to the student's high school friends (0-5).

[3]The college religiosity index (standardized; originally 0-40) is comprised of the sum of four, equally-weighted measures: Overall self-rated religiosity (0-10), self-rated observance of one's religious customs (0-10), religious service attendence frequency (0-10), and the importance to college friends of the student's participation in religious activities (0-10).

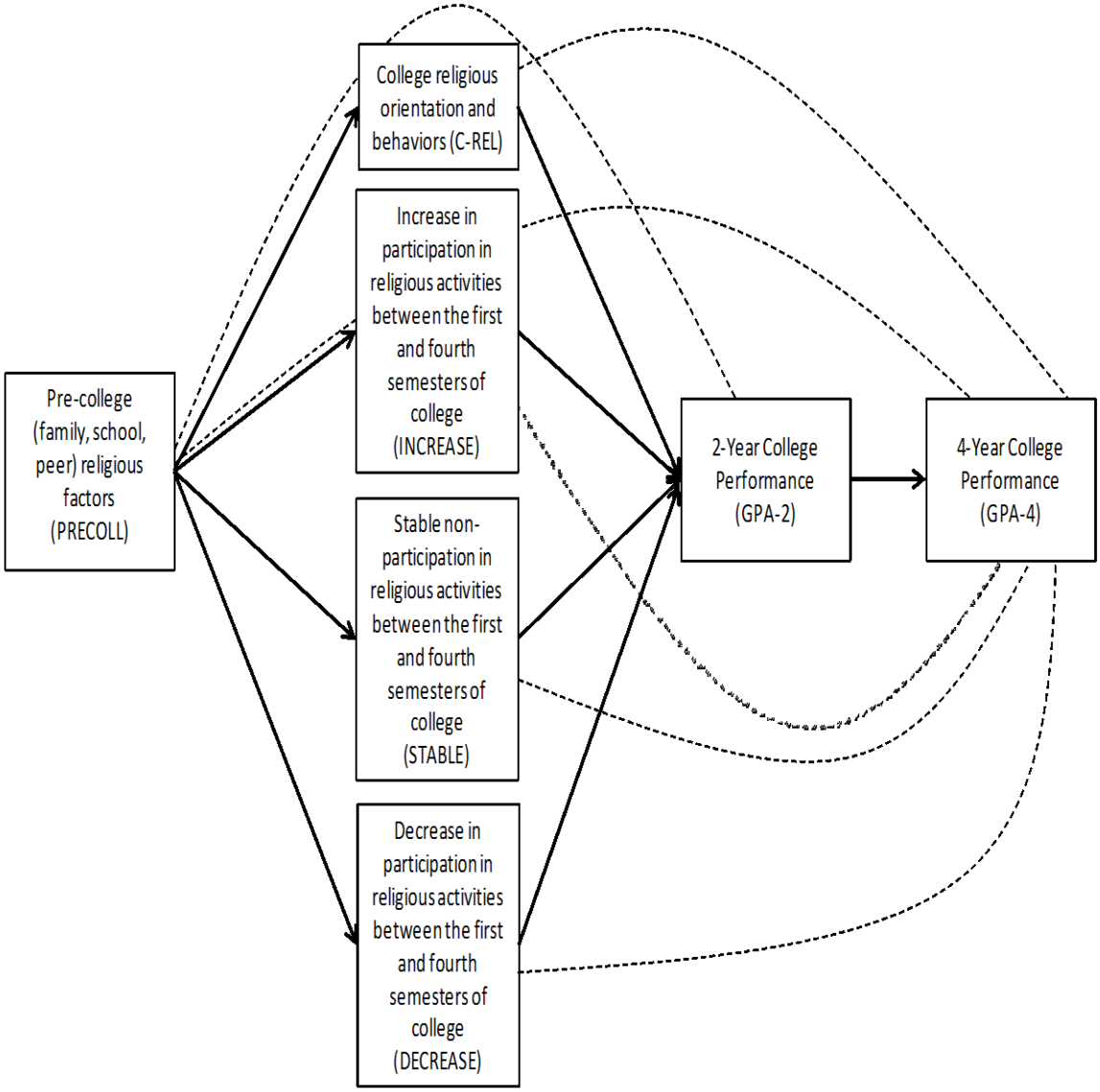
[4]The change in religious activity participation variables are indicators for the difference in the respondent's self-described frequency of religious activity participation in the first comapared to fourth semesters of college. The religious participation variable in the first semester was originally categorical for frequency of participation (more than once/week to never), but was converted to a binary variable for regular religious participation (defined as participating regularly, weekly, or more than weekly vs. never or rarely). Religious participation in the fourth semester is a binary.

Figure 1. Conceptual Model of Expected Associations Between Pre-College, College, and Decrease in College Religiosity and Academic Performance



NOTE: Signs overlaying arrows represent expected directions of associations between constructs. Positive signs (+) represent expected positive associations, negative signs (-) represent expected negative associations, and zeros (0) represent expected null associations between constructs.

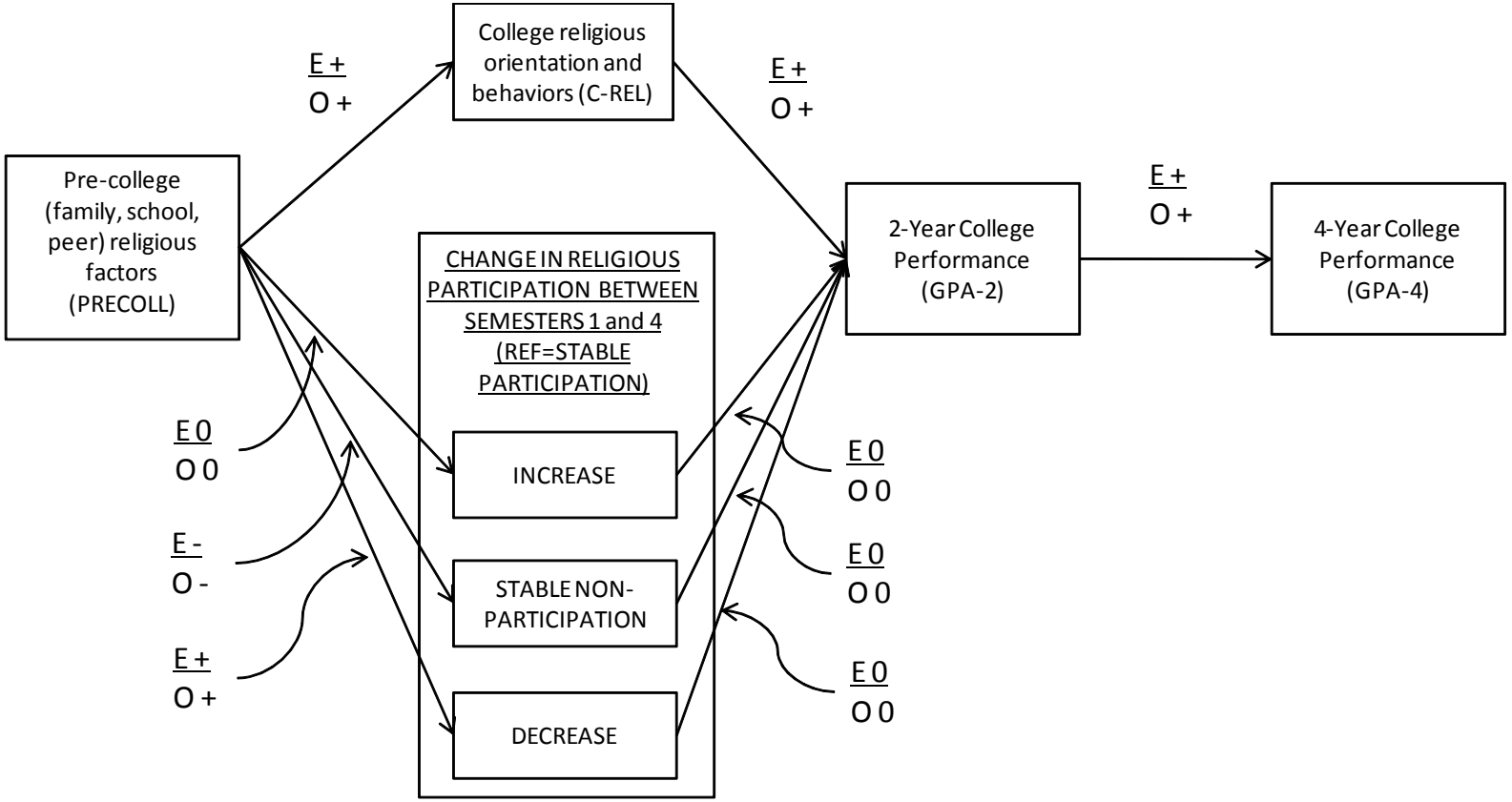
Figure 2. Path Diagram for Path Model Testing Associations Between Pre-College, College, and Change in College Religiosity and Academic Performance



Notes:
Solid arrows represent regression paths estimated as part of the conceptual model shown in Figure 1. Dotted lines represent regression paths estimated to test alternate paths not in line with the posited conceptual model.

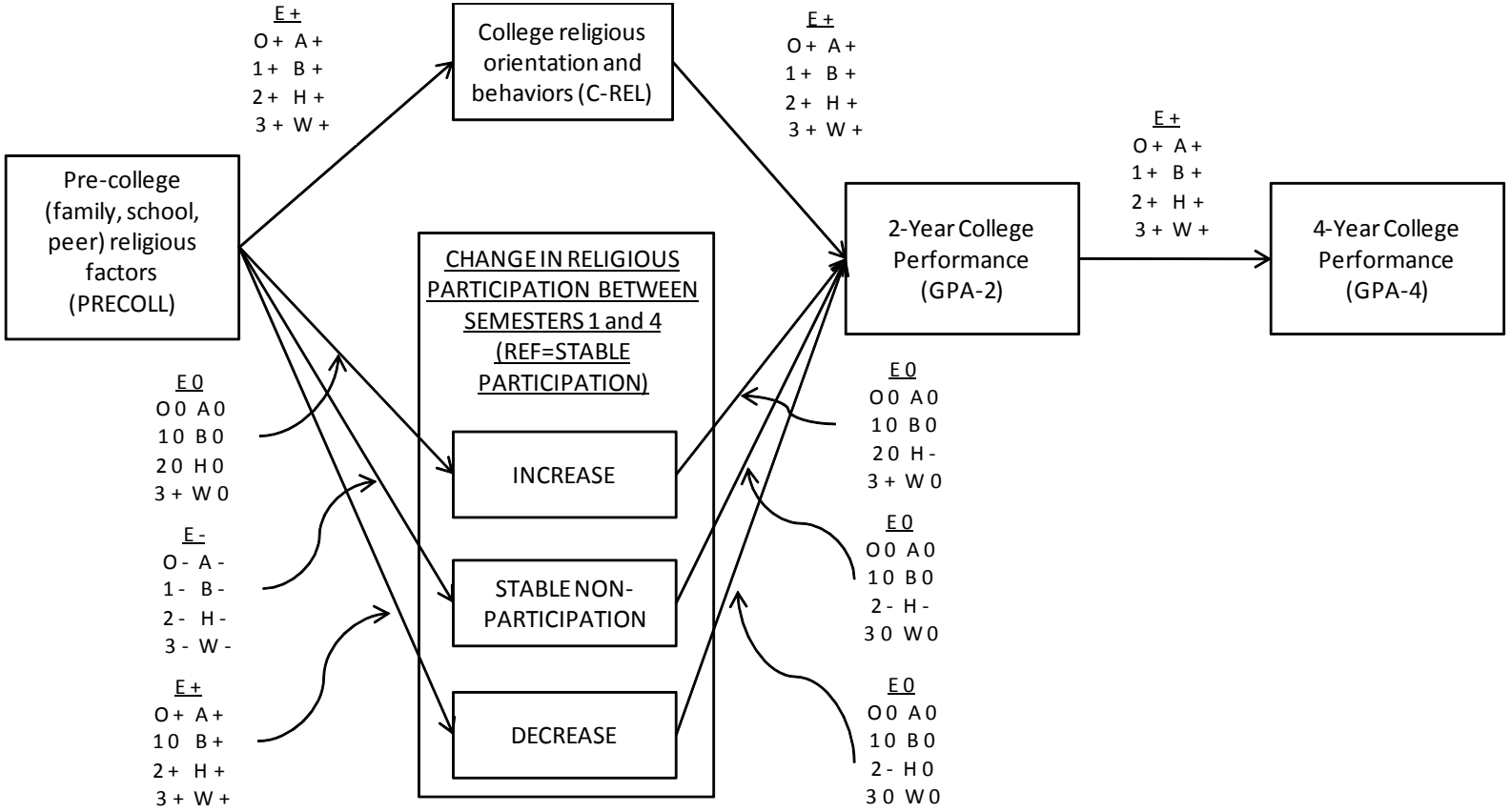
Each of the variables/indexes shown above is simultaneously regressed on each of the following control variables: Religious denomination, race, immigrant generation, gender, prior academic achievement (H.S. GPA, number of AP courses), family social class (parental education, percent of college paid by family), family structure (parental strictness index, mom and dad both lived at home in high school, number of hours mom worked outside home in H.S., number of siblings), racial environment factors, region, college academic orientation (parents' opinion of school, parents expect good grades in college, college friends expect good grades in college, self-discipline index--including hours studied/wk, hours extra-curriculars/wk), and interaction controls (Protestant*region, Protestant*racial environment factors, Protestant*% college paid by family, Protestant*number of siblings).

Figure 3. Directions of Expected vs. Realized Associations Between Pre-College, College, and Decrease in College Religiosity and Academic Performance Aggregated Across Race/Immigrant Generations



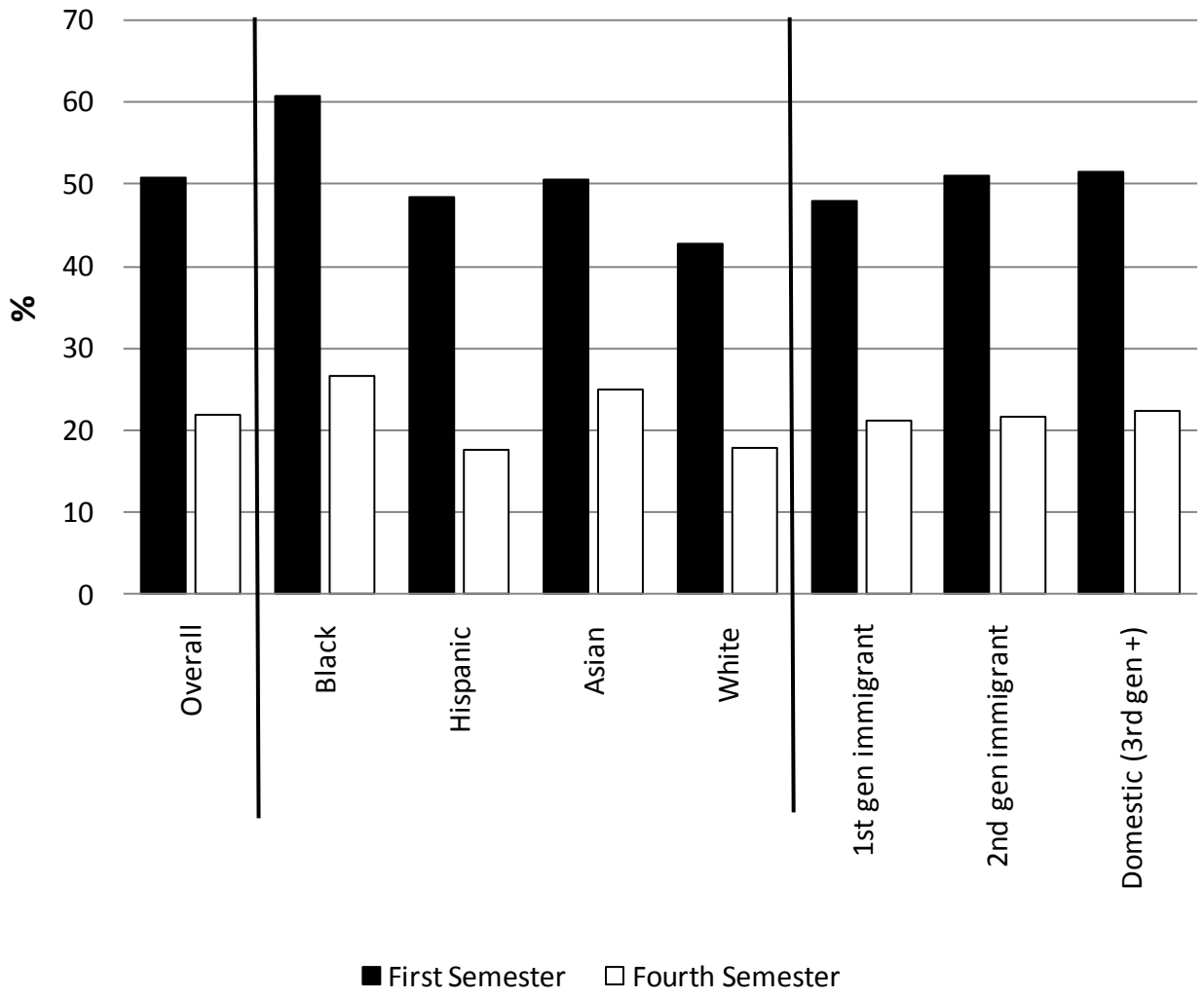
NOTE: All paths shown in Figure 3 are estimated, but, for parsimony, only paths relevant to the conceptual model in Figure 2 are sh own here. Controls are not shown, but each variable above is regressed on all controls. "E" stands for expected directions based on hypotheses, "O" represents overall results across all race/immigrant groups. Signs overlaying arrows represent directions of statistically significant associations (at the .05 level) between constructs. Positive signs (+) represent realized positive associations, negative signs (-) represent realized negative associations, and zeros (0) represent realized statistically zero associations between constructs. Coefficients and standard errors are displayed in Table 3, and effects of controls are shown in Appendix A.

Figure 4. Directions of Expected vs. Realized Associations Between Pre-College, College, and Decrease in College Religiosity and Academic Performance Across Race/Immigrant Generations and By Race/Immigrant Generation



NOTE: Controls not shown here but are included in all models as indicated in Figure 2. "E" stands for expected directions based on hypotheses, "O" represents overall results across all race/immigrant groups, "1", "2", and "3" represent associations for first generation, second generation, and domestic students, respectively, and "A", "B", "H", and "W" represent results for Asians, blacks, Hispanics, and whites, respectively. Signs overlaying arrows represent directions of statistically significant associations (at the .05 level) between constructs. Positive signs (+) represent realized positive associations, negative signs (-) represent realized negative associations, and zeros (0) represent realized statistically zero associations between constructs. Coefficients displayed in Table 3.

Figure 5. Religious Group Participation in the First and Fourth Semesters of College, by Race and Immigrant Generation



APPENDIX A. COEFFICIENTS OF CONTROL VARIABLES USED IN SINGLE GROUP PATH ANALYSS SHOWING OVERALL RELATIONSHIPS BETWEEN PRE-COLLEGE, COLLEGE, & CHANGE IN COLLEGE RELIGIOSITY & 2-YEAR & 4-YEAR GRADE PERFROMANCE AGGREGATED ACROSS GROUPS[1]

	Pre-College Religious Influences (Index)			College Religious Behavior & Orientation (Index)			Increase in Religious Participation			Stable Non-Participation in Religious Activities			Decrease in Religious Participation			Stable Participation (REFERENCE)			2-Year GPA			4-Year GPA		
Variable	B		SE	B		SE	B		SE	B		SE	B		SE	B		SE	B		SE	B		SE
Intended College Major (Freshman year)																								
Science/Math/Engineering	0.047		0.028	0.010		0.024	-0.019		0.031	0.000		0.028	-0.014		0.032	--	--	--	-0.107	***	0.028	-0.107	***	0.028
Social Science	0.071	**	0.026	-0.009		0.022	0.006		0.029	0.008		0.026	-0.026		0.029	--	--	--	-0.007		0.025	-0.007		0.025
Other/Don't Know Major	0.009		0.034	-0.043		0.029	-0.025		0.036	0.026		0.033	-0.038		0.038	--	--	--	-0.061		0.033	-0.061		0.033
Humanities	ref			ref			ref			ref			ref						ref			ref		
College Academic Orientation																								
Self-Discipline Index (0-30)[1]	0.035	*	0.018	0.043	**	0.016	-0.010		0.020	-0.059	**	0.019	0.022		0.021	--	--	--	0.098	***	0.018	0.098	***	0.018
Parents' Opinion of College (0-10)	0.137	***	0.018	0.036	*	0.014	0.004		0.019	-0.025		0.017	0.034		0.019	--	--	--	-0.004		0.017	-0.004		0.017
Parents Expect Me to Receive Good Grades in College (0-10)	0.008		0.018	0.025		0.014	-0.023		0.019	-0.028		0.018	0.055	**	0.020	--	--	--	-0.028		0.018	-0.028		0.018
College Friends Expect Me to Receive Good Grades in College (0-10)	0.072	***	0.017	0.081	***	0.015	0.004		0.019	-0.028		0.019	-0.003		0.021	--	--	--	-0.030		0.017	-0.030		0.017
Hrs. Extracurriculars/Wk-2nd Semester (0-120)	-0.038	*	0.017	-0.042	**	0.015	-0.010		0.019	0.014		0.018	-0.005		0.020	--	--	--	-0.033		0.017	-0.033		0.017
High School GPA (0-4)	0.069	***	0.018	0.035	*	0.017	0.025		0.020	-0.040	*	0.018	0.007		0.021	--	--	--	0.235	***	0.017	0.235	***	0.017
No. AP Exams Taken in High School (0-10)	-0.046	*	0.018	0.005		0.015	-0.014		0.020	-0.010		0.017	-0.019		0.019	--	--	--	0.093	***	0.017	0.093	***	0.017
Family Structure																								
Parental Strictness Index in H.S. (0-50)[2]	0.054	**	0.017	0.034	*	0.014	-0.013		0.018	-0.015		0.016	0.025		0.018	--	--	--	-0.006		0.017	-0.006		0.017
Mom and Dad Both Lived at Home in H.S.	0.042	*	0.018	0.030	*	0.015	0.009		0.020	-0.030		0.018	0.024		0.020	--	--	--	0.006		0.018	0.006		0.018
Number of Siblings (Excluding Respondent)	0.037		0.021	0.048	*	0.019	0.046	*	0.023	-0.060	**	0.021	0.040		0.025	--	--	--	-0.018		0.021	-0.018		0.021
No. Hours Mom Employed Outside Home During Typical 7-Day Week in H.S. (0-120)	-0.015		0.017	-0.001		0.014	-0.004		0.019	-0.010		0.016	-0.001		0.019	--	--	--	0.013		0.018	0.013		0.018
DEMOGRAPHIC CHARACTERISTICS																								
Catholic	0.280	***	0.026	0.159	***	0.028	0.012		0.031	-0.184	***	0.026	0.143		0.029	--	--	--	-0.061	*	0.027	-0.061		0.027
Protestant	0.324	***	0.049	0.255	***	0.044	0.087		0.053	-0.247	***	0.047	0.027		0.052	--	--	--	0.007		0.050	0.007		0.050
Jewish	0.183	***	0.020	-0.003		0.019	0.147	***	0.023	-0.038	*	0.019	-0.038		0.022	--	--	--	0.027		0.020	0.027		0.020
Muslim	0.052	**	0.018	0.061	**	0.018	0.053	**	0.019	-0.056	**	0.018	-0.008		0.020	--	--	--	-0.005		0.018	-0.005		0.018
Hindu, Buddhist, or Jain	0.034		0.021	0.051	**	0.019	0.030		0.023	-0.036		0.021	0.044		0.023	--	--	--	-0.001		0.020	-0.001		0.020
Other/Don't Know Religious Affiliation	0.046	**	0.017	-0.005		0.015	0.026		0.019	0.007		0.017	-0.025		0.018	--	--	--	0.000		0.017	0.000		0.017
Agnostic	ref			ref			ref			ref			ref						ref			ref		
Asian	0.157	***	0.027	0.045		0.023	0.073	*	0.030	-0.063	*	0.027	-0.027		0.030	--	--	--	-0.036		0.027	-0.036		0.027
Black	0.109	***	0.026	0.074	***	0.021	0.021		0.028	-0.049	*	0.025	0.027		0.028	--	--	--	-0.164	***	0.025	-0.164	***	0.025
Hispanic	0.042		0.024	0.017		0.02	0.029		0.026	-0.015		0.026	-0.020		0.029	--	--	--	-0.092	***	0.024	-0.092	***	0.024
White	ref			ref			ref			ref			ref						ref			ref		
First Generation Immigrant	-0.055	**	0.021	-0.015		0.017	0.015		0.023	-0.005		0.020	0.001		0.022	--	--	--	-0.003		0.021	-0.003		0.021
Second Generation Immigrant	-0.054	*	0.022	0.002		0.018	-0.037		0.024	0.006		0.022	0.000		0.025	--	--	--	-0.008		0.022	-0.008		0.022
Third Generation or Earlier 'Domestic'	ref			ref			ref			ref			ref						ref			ref		
Male	-0.019		0.017	0.007		0.014	0.004		0.019	-0.038	*	0.017	0.029		0.019	--	--	--	-0.034	*	0.017	-0.034	*	0.017
Two Parents Advanced Degree	-0.013		0.024	0.003		0.021	0.007		0.028	-0.006		0.028	-0.018		0.030	--	--	--	0.128	***	0.024	0.128	***	0.024
One Parent Advanced Degree	0.030		0.023	0.029		0.020	-0.011		0.027	-0.005		0.025	0.004		0.028	--	--	--	0.064	**	0.023	0.064	**	0.023
Two Parents B.A. or Equivalent	0.000		0.020	0.015		0.017	0.000		0.023	-0.024		0.021	0.001		0.024	--	--	--	0.031		0.020	0.031		0.020
One Parent B.A. or Equivalent	0.027		0.020	0.015		0.017	-0.001		0.023	-0.005		0.021	0.003		0.022	--	--	--	0.016		0.020	0.016		0.020
Both Parents Less than B.A.	ref			ref			ref			ref			ref						ref			ref		
Percent of College Paid for by Parents	0.024		0.021	-0.028		0.018	0.020		0.024	0.016		0.021	-0.019		0.023	--	--	--	-0.005		0.021	-0.001		0.032
Avg. Neighborhood % Black or Hispanic (0-100)	0.188	**	0.057	-0.017		0.049	-0.040		0.060	0.101		0.060	-0.065		0.064	--	--	--	0.120	*	0.054	0.120	*	0.054
Avg. School % Black or Hispanic (0-100)	-0.099		0.052	0.049		0.048	0.051		0.057	-0.110		0.059	0.078		0.061	--	--	--	-0.142	**	0.053	-0.142	**	0.053
South	0.049	*	0.023	0.016		0.022	0.025		0.025	-0.037		0.023	0.032		0.024	--	--	--	0.040		0.022	0.040		0.022
Texas	0.018		0.023	-0.024		0.019	-0.010		0.026	0.015		0.022	-0.027		0.026	--	--	--	0.012		0.022	0.012		0.022
North	ref			ref			ref			ref			ref						ref			ref		
INTERACTIONS																								
Protestant*Neighborhood % Minority	-0.052		0.068	-0.037		0.056	-0.016		0.072	-0.046		0.069	0.097		0.075	--	--	--	0.031		0.065	0.031		0.065
Protestant*School % Minority	0.088		0.067	0.025		0.056	0.017		0.071	0.035		0.070	-0.063		0.075	--	--	--	-0.115		0.066	-0.115		0.066
Protestant*South	0.066	**	0.025	-0.010		0.022	-0.045		0.027	0.013		0.024	0.015		0.026	--	--	--	-0.042		0.024	-0.042		0.024
Protestant*Texas	0.027		0.023	0.029		0.019	-0.017		0.025	-0.013		0.022	0.010		0.025	--	--	--	-0.034		0.023	-0.034		0.023
Protestant*Number of Siblings	0.024		0.026	0.026		0.022	-0.044		0.028	-0.002		0.026	0.008		0.029	--	--	--	0.020		0.026	0.020		0.026
Protestant*% College Paid by Family	-0.082	**	0.031	-0.034		0.025	-0.044		0.034	0.044		0.030	0.007		0.033	--	--	--	-0.001		0.032	-0.001		0.032
N	3110																							
Chi-squared (d.f.)	3863.54 (6)***																							
RMSEA	0.04																							
CFI	0.91																							

***Significant at .001; **Significant at .01; *Significant at .05. Robust standard errors are clustered by university. Reporting standardized coefficients.

[1]Multiple imputation of 5 datasets is used to deal with item non-response. A Heckman selection correction was used to deal with the 9% and 20% of survey non-respondents at 2-years and 4-years, respectively. Results did not change substantive findings and are available from the author upon request.

[2]The index of pre-college religiosity (0-10) is comprised of the sum of three, equally-weighted items: the importance placed on college religious environment in the student's college decision on a scale of 1-10, indicators of whether the student attended a religious school at ages 6, 13, and/or 18, and the importance of religious participation to the student's high school friends (0-5).

[3]The college religiosity index (standardized; originally 0-40) is comprised of the sum of four, equally-weighted measures: Overall self-rated religiosity (0-10), self-rated observance of one's religious customs (0-10), religious service attendence frequency (0-10), and the importance to college friends of the student's participation in religious activities (0-10).

[4]The change in religious activity participation variables are indicators for the difference in the respondent's self-described frequency of religious activity participation in the first comapared to fourth semesters of college. The religious participation variable in the first semester was originally categorical for frequency of participation (more than once/week to never), but was converted to a binary variable for regular religious participation (defined as participating regularly, weekly, or more than weekly vs. never or rarely). Religious participation in the fourth semester is a binary.

ENDNOTES

[i] Whereas the U.S. military—another institution to have undertaken the social project of racial integration—falls under the prevue of federal politics, policy, and voters and often requires robust social movements accompanied by charismatic leadership to enact the type of change that occurred during the racial integration of the U.S. military in the 20th Century (Mettler XXXX), elite colleges and universities, many of which are private and therefore funded in large part through endowments with limited government oversight, have had the unique ability to fashion their own admission programs to the goal of student body diversification (Bowen and Bok 1998). Of course the ability to admit students under preferential and opaque practices has come under fire at times, such as during the various state and federal Supreme Court cases where plaintiffs have filed for a ban on affirmative action, but today preferential admissions practices remains relatively intact at the federal level largely as a result of convincing claims about the tremendous educational benefits of learning in diverse environments (Gurin and Bowen 1999; Gurin, Dey, Hurtado, and Gurin 2002).

[ii] Because three of these religious behaviors and orientation measures comprising the standardized religiosity index were collected during students' first semester of college—before they have had much time to acclimate to their new college environment—it was unclear whether these measures of religious behaviors and orientation represent a continuation of childhood religious influences or more closely resemble the religiosity of students once they are more integrated into college. To test this empirically, I ran models regressing a *three-item* standardized religiosity index (comprised of the three measures of religious behaviors and orientation from the first semester of college) on the childhood religious measures and fourth semester college religious participation variable separately, but each including all demographic

controls. I then added in the college religious behaviors and orientation measure (asking the respondent how important s/he thinks it is to her/his college friends that s/he participates in college religious activities as of the fourth semester) to the model with the childhood religiosity measures. I found a stronger correlation between the three-item religiosity index and the fourth semester religious participation variable compared to that between the three-item religiosity index and the childhood religiosity measure; the magnitude of the fourth semester religious participation variable was *not* attenuated and remained significant, and the proportion of variation explained by the model increased significantly compared to the model with only the childhood religiosity measure (and demographic controls) predicting the three-item religiosity index. This provides strong indication that first semester college religious behaviors and orientation more closely resemble college rather than childhood religious factors.