

Higher Education and Religious Liberalization among Young Adults

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Going to college has long been assumed to liberalize students' religious beliefs. Using longitudinal data from the National Study of Youth and Religion, we compare change in the content of religious beliefs of those who do and do not attend college. We find that, in general, college students are no more likely to develop liberal religious beliefs than non-students. In some cases, collegians actually appear more likely to retain their initial beliefs. Change in religious beliefs appears instead to be more strongly associated with network effects. These findings indicate that college's effect on students' religious beliefs is both weak and fragmented, and suggest that the multiplicity of social worlds on college campuses may help to sustain religious beliefs as well as religious practice and commitment.

Social scientists have become increasingly interested in the relationship between religion and higher education in recent years (Calhoun et al. 2007). While college has long been thought to undermine religious belief and practice, recent studies have challenged this view, demonstrating that college is not the "faith-killer" it was once thought to be, and that college may actually help sustain students' religious commitments (e.g., Uecker, Regnerus and Vaaler 2007).

Yet while these newer studies have shown that college does not necessarily lead to decreased religious participation or commitment, they have not examined how college may affect students' religious *beliefs*. In fact, the matter is the subject of an ongoing and unresolved debate. Some scholars, situated in a long line of higher education research (Feldman and Newcomb 1969; Pascarella and Terenzini 1991, 2005), have argued that while college may not lead students to fall from the faith, it may lead the content of their beliefs to shift in a more liberal direction. Others, however, have asserted that college has hardly any impact on students' beliefs, and that young adults put their religious commitments in an "identity lockbox" during the college years (Clydesdale 2007). As one recent review of the literature explained, "the question is now less about whether students' religious commitments are maintained or abandoned, and more about whether they are ignored or reconstituted during the college years." (Mayrl and Oeur 2009:265)

This article contributes to the resolution of that debate. By using a nationally representative, longitudinal sample of young adults, fine-grained measures of reli-

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gious belief and an explicit comparison between those who have attended college and those who have not, we examine whether any liberalization in religious beliefs is attributable to college.

Is College a Liberalizing or a Negligible Influence?

Conventional scholarly wisdom has long held that higher education liberalizes students' beliefs (Feldman and Newcomb 1969). A prominent survey on how college affects students concluded that one major effect was that students' "[r]eligious beliefs become more individual and less doctrinaire, and tolerance for the religious views of others appears to increase." (Pascarella and Terenzini 1991:326) The argument that college liberalizes religious beliefs has even served as the foundation for trenchant analyses of American society; Wuthnow (1988) made the differences in religious belief that flowed from the "education gap" a key part of his explanation of the "restructuring" of American religion into liberal and conservative camps.

In recent years, many scholars have continued to find that students' religious beliefs tend to become more liberal and less orthodox. Qualitative studies often find that the college experience reduces religious orthodoxy and promotes individualistic beliefs (Cherry, DeBerg and Porterfield 2001; Cole and Ahmadi 2003; Lee 2002a). Some quantitative studies have found similar liberalizing effects. Among college students, Astin, Astin and Lindholm's (2011) longitudinal study found that most indicators of religious conservatism declined over the college years. Studies using the General Social Survey or other national samples have found that higher levels of education are negatively associated with biblical literalism (Petersen 1994; Sherkat 1998), biblical inerrancy (Wuthnow 2007), and certainty in the existence of God (Johnson 1997; Sherkat 2008). Using a small sample of Presbyterians, Hoge, Johnson and Luidens (1993) found that higher levels of education and being a humanities or social science major in college were associated with an array of nontraditional beliefs. More recently, Reimer (2010) similarly found, using a sample of church-going Protestants, that higher education, secular higher education and exposure to secular theories (Marx, Freud, Nietzsche, etc.) were all associated with more liberal religious beliefs. And Schieman (2010) found that higher socio-economic status (a variable encompassing both education and income) was associated with decreased belief in a personal god and decreased belief in divine control over human affairs.

In contrast with these studies, other recent research has found that college has only limited, or even slightly conservative, effects on students' religious beliefs. Based on interviews with young adults a year after graduating from high school, Clydesdale (2007:59) found that "faith's role hardly alters at all" for most students during the first year of college, as students put their beliefs into an "identity lockbox" and focus instead on management of daily life. Smith (1998) similarly found, through interviews with evangelicals, that the vast majority who had attended college said it had not made them doubt their religious beliefs. A number of quantitative studies of college students have likewise found that strong pluralities or a majority of students

report no shifts in the self-rated importance of their religious beliefs during college (Hurtado et al. 2007; Lee 2002b; Lee, Matzken and Arthur 2004).

Thus, existing research on how college affects students' beliefs is torn between those studies that continue to find that college has a significant liberalizing effect, and those that argue its impact is minimal or even protective. Yet limitations of this research make it difficult to adjudicate between these two theories. Many qualitative studies rely on non-probability samples of college students which, while suggestive, raise questions about how widespread or representative their findings are, and do not speak to similarities or dissimilarities between college students and their nonstudent counterparts. Many quantitative studies are based on probability samples, but they are also cross-sectional and thus cannot adjudicate whether differences in religious beliefs existed prior to college or emerged as a result of the college experience itself. They also typically examine beliefs among adults who attended college at different times and, in many cases, long ago. Moreover, very few studies explicitly attempt to compare college students with those who do not attend college. In light of these shortcomings, it is not surprising that reviews of the relevant literature regularly call for more longitudinal studies of the religious commitments of young adults—both college students and those who do not attend college (Barry et al. 2010; Hartley 2004; Mayrl and Oeur 2009).

How College Affects Students: The Dimensions and Logic of Belief Liberalization

The proposition that college liberalizes students' religious beliefs raises two related questions: (1. What do we mean when we say that students' beliefs have become more liberal? (2. On what grounds should we expect college to liberalize religious beliefs?

Seven Dimensions of Liberalization

Higher education is thought to liberalize students' beliefs by exposing students to religious diversity, encouraging cognitive development and creating cognitive dissonance. These mechanisms may act in concert to liberalize students' beliefs along at least seven possible dimensions. College students, relative to their non-student peers, may become (1. *more unorthodox*—less in step with the traditional teachings of their faith tradition; (2. *more naturalistic*—less likely to believe in divinely-orchestrated supernatural occurrences; (3. *more uncertain* about their faith—more likely to have doubts about whether their religion is true; (4. *more reserved*—less likely to believe it is alright for people to try to convert others; (5. *more inclusive*—more likely to believe that religions other than their own could be true; (6. *more individualistic*—more likely to grant individuals rather than institutions authority in deciding what they should believe; and (7. *more independent*—less tied to institutional religion for their religious identity.¹

Social Effects

A first mechanism thought to contribute to belief liberalization is the “cultural broadening” that comes from exposure to people with different beliefs (Hoge et al. 1993:243). The experience of going to college potentially relocates students in a new environment

characterized by greater diversity of thought and practice. Theoretically, this exposure to diverse points of view is thought to liberalize students' beliefs by making them more uncertain about their own preexisting faith commitments. This argument is grounded in Peter Berger's (1967) idea that religious belief requires a "plausibility structure" within which beliefs can be taken for granted. Diversity of belief, according to this theory, undermines the student's plausibility structure, leading to increased doubt. In short, the exposure to alternative religious beliefs is thought to cause students to question their own beliefs (see also Astin et al. 2011).

Regular interaction with peers and faculty with diverse religious (and non-religious) beliefs may have a second liberalizing effect: increased comfort with religious pluralism. Studies of racial diversity on college campuses indicate that having friends of another race, and participating in activities that expose oneself to racial diversity, has positive net effects on racial tolerance (Pascarella and Terenzini 2005). Exposure to religious diversity is thought to have a similar effect on religious beliefs. Studies of the general population typically find that encounters with religious diversity lead people to be more open to other faiths (e.g., Merino 2010; Wuthnow 2007). Among college students, Bryant and Astin (2008) found that spiritual struggle (including questioning of one's religious beliefs) was positively associated with increased acceptance of people with diverse religious beliefs. More indirectly, Schwadel (2005) found that more-educated churchgoing Protestants were more likely to favor a "subdued" role for Christianity in politics, largely out of the belief that Christians should not impose their religion on others. Thus, the cultural broadening brought about by exposure to diversity may additionally lead students to become more open to people from other religious traditions.

At the same time, however, religious beliefs may be more proximately affected by particularly salient social ties—relationships with parents, peer groups and religious communities. Parents act as a potential buttress for traditional beliefs among emerging adults (Smith and Snell 2009). Close relationships with parents improve the intergenerational transmission of religious beliefs and practices, sustaining continuity in religious behavior (Myers 1996). Some studies have shown that parental religiosity can continue affecting religious beliefs into the college years: Those whose parents attended church more regularly were more likely to retain traditional beliefs about God (Smith and Snell 2009; Willits and Crider 1989).

While parents remain an important influence on emerging adults, peers take on an increasingly important role among college students (Gunnore and Moore 2002). More than three-quarters of college students' religious experiences and discussions are thought to take place with their friends (Barry et al. 2010). Not surprisingly, several studies of college students have found that peer groups play an important role in shaping students' beliefs. Students whose friends attend church with them are more likely to accept traditional religious beliefs, with the impact being strongest if all of a student's friends attend church with her (Roberts, Koch and Johnson 2001). Further, having a more religious peer group has also been shown to correlate with more exclusivist religious beliefs (Becker 1977). Living situation is also thought to affect religious

beliefs, largely through differential exposure to peers. Studies have shown that those who live at home are less likely to disaffiliate from religion (Pascarella and Terenzini 1991), less likely to experience change in their religious values (Hartley 2004), and more likely to increase their religious participation (Hill 2009). Living in a residence hall, by contrast, has been associated with increased odds of disaffiliation and increased openness to religious diversity (Pascarella and Terenzini 1991, 2005).

A final influence on students' religious beliefs is the religious community in which they are embedded. Active participation in congregations provides young adults with role models, social networks, spiritual experiences and regular exposure to religious beliefs that are thought to reinforce their religious commitments (Smith 2003). These close-knit communities may protect students' beliefs; three recent studies (Astin et al. 2011; Reimer 2010; Schieman 2010) have found that the liberalizing effects of higher education are mitigated or counteracted by religious service attendance and personal devotion.

In sum, because the religiously diverse college setting is thought to foster more uncertain and inclusive beliefs, differences in college student connection to parents, religious peers, and religious congregations may be important mediators of the effect of college on religious change. Stronger parental relations, a greater amount of homophily in friendship networks, living at home and attending services may all be associated with greater retention of traditional beliefs.

Cognitive Effects

College is also thought to influence students' religious beliefs through cognitive effects, particularly cognitive development and dissonance. Colleges and universities are specifically designed to improve students' intellectual skills, and, not surprisingly, college students manifest significantly higher levels of cognitive ability, in terms of critical thinking skills and post-formal reasoning, than those who do not attend college (Pascarella and Terenzini 2005). The cognitive development that higher education encourages, in turn, is thought to contribute to the emergence of more complex and inclusive forms of belief by promoting rational thinking and opening the mind to the possibility of multiple truths (Barry et al. 2010; Good and Willoughby 2008).

Further, cognitive development is thought to contribute to more individualistic and reflexive forms of belief. According to James Fowler (1981), for example, emerging adulthood is the typical time for individuals to move from a "synthetic-conventional" faith, where beliefs are traditional and largely determined by external sources of authority, to an "individuated-reflective faith," characterized by the rise of an "executive ego" that permits individuals to reflect upon and select their own beliefs based on internal authority. As Fowler notes (1981:179), the college experience (along with travel and moving away from home) encourages the "relativization of [individuals'] inherited world views" and provides the essential "critical distancing" needed to undergo the transition to an individuated-reflective faith. Students' religious beliefs do appear to become more individualistic and independent during the college years (Arnett 2004; Wuthnow 2007). Lee (2002a) found that students who reported changing their beliefs

during college had developed a “contextualized self,” viewing themselves as active agents in creating their own, independently-derived spirituality. And several studies have found that college students appear skeptical and wary of religious institutions, often preferring to speak of their own personal “spirituality” rather than institutional “religion.” (Arnett 2004; Cherry et al. 2001)

Nevertheless, although cognitive development may lead to more *complex* beliefs, it does not follow that it must lead to more *liberal* religious beliefs, as the many examples of sophisticated conservative theologies demonstrate (e.g., Barth 1968). It may be, therefore, that the supposed cognitive development effect instead reflects exposure to a collegiate curriculum developed to meet the liberal goals of modern American universities. Accordingly, it may not be cognitive *development*, but rather cognitive *dissonance* arising from exposure to religiously-problematic ideas that can lead to liberalization. The positivist approaches and secular assumptions of the natural and social sciences, in particular, are often thought to challenge traditional religious beliefs (Ecklund, Park and Veliz 2008). In the humanities, too, history, philosophy and religious studies courses may more directly influence students to adopt less orthodox beliefs by exposing them to Enlightenment thought, Higher Criticism and liberal theology. Specific disciplines do appear to have distinct influences on students. Humanities and social science majors are more likely to hold nontraditional beliefs (Hoge et al. 1993), and exposure to secular theories (such as those discussed in philosophy and sociology courses) was recently found to be a strong predictor of decreased orthodoxy (Reimer 2010). In short, the cognitive effects associated with higher education may make students’ religious beliefs more complex, individualistic and independent, and less orthodox.

Research Questions

The goal of this article is to adjudicate between the two competing schools of thought on how college affects students’ religious beliefs. Our primary research question is thus simply: Does attending college, net of other factors, cause students’ religious beliefs to become more liberal? Secondly, we also ask: Do social network and cognitive effects explain differences between college students and non-attenders?

Data

The data for this study come from the first and third waves of The National Study of Youth and Religion. Wave 1 of the NSYR, conducted in 2002-2003, is a nationally representative, random-digit-dial telephone survey of 3,290 English- and Spanish-speaking teenagers (ages 13-17) in all 50 United States. In Wave 3, conducted in 2007-2008, every attempt was made to re-interview all English-speaking Wave 1 youth survey respondents, who were by this time ages 18-24. The Wave 3 survey instrument replicated many of the questions asked in Wave 1. Of the eligible 3,282 Wave 1 respondents, 2,532 participated in the Wave 3 survey (including 13 partial cases), for a Wave 3 completion rate of 77.1 percent.² Because the NSYR was designed to capture the shape and influence of religion and spirituality in the lives of

American youth, it includes a wealth of information about respondents' religious beliefs at both waves, making it ideal for a study of change in religious beliefs from adolescence to early adulthood.

Measures

Dependent Variables

We examine seven dichotomous dependent variables, one for each dimension of liberalization. Because we are interested in liberalization, each variable is a measure of change from what might be considered a traditional or conservative position to what might be considered a progressive or liberal position. Thus, we restrict our samples to young adults who held traditional positions as adolescents. The first dependent variable measures a change in one's belief in a personal god. Respondents were asked at both waves whether they believed in God and, subsequently, what their view of God was. On this second question, they could choose from four response categories: "God is a personal being involved in the lives of people today," "God created the world, but is *not* involved in the world now," "God is not personal, but something like a cosmic life force," or "None of these views." Respondents who believed in a personal god at both waves are coded 0, and those who believed in a personal god at Wave 1 but something other than a personal god (or did not believe in a god at all) at Wave 3 are coded 1.

Our second dependent variable taps the loss of belief in supernatural occurrences. Respondents were asked at both waves, "Do you believe in the possibility of divine miracles from God?" Those who responded "definitely" at both waves are coded 0; those who responded "definitely" at Wave 1 but "maybe," "not at all," or "don't know" at Wave 3 are coded 1.

As a measure of uncertainty, we created a variable gauging respondents' *increased* doubts in their religion between waves. At both waves, NSYR asked those who considered themselves religious, "In the last year, how much, if at all, have you had doubts about whether your religious beliefs are true? Have you had many doubts, some doubts, a few doubts, or no doubts?" We restrict the sample here to respondents with the opportunity to increase their doubt—those with no, few or some doubts. Those who reported an equal or lesser amount of doubt between waves are coded 0; those who reported an increase in doubt (e.g., from few to many, from none to few) are coded 1. Those who disaffiliated from their religion between waves were not asked this question at wave 3, and are excluded.

Our fourth dependent variable measures change in reservedness. Respondents were asked, "Is it okay for religious people to try to convert other people to their faith, or should everyone leave everyone else alone?" Those who indicated it is okay to convert others at both waves are coded 0; those who said it was okay at Wave 1 but not at Wave 3 (including those who "don't know" at Wave 3) are coded 1.

To gauge change in religious inclusivity, we include a measure of whether the respondent no longer believes only one religion is true, but instead that many religions may be true. At waves 1 and 3, respondents were asked, "Which of the following statements

comes closest to your own views about religion? Only one religion is true, many religions may be true, or there is very little truth in any religion?" Respondents answering at both waves that only one religion is true are coded 0; respondents who at Wave 1 said only one religion was true but at Wave 3 said many could be true are coded 1.

Our sixth dependent variable measures change in religious individualism. At both waves, respondents were asked, "Some people think that it is okay to pick and choose their religious beliefs without having to accept the teachings of their religious faith as a whole. Do you agree or disagree?" Those who disagreed with this at both waves are coded 0; those who disagreed at Wave 1 but agreed at Wave 3 are coded 1.

Lastly, our measure of (institutional) religious independence is a measure of increasing identification with the label "spiritual but not religious." At both waves, NSYR asked, "Some people say that they are 'spiritual but not religious.' How true or not would you say that is of you: very true, somewhat true, or not true at all?" Similar to the uncertainty measure, we restrict this sample to those with the opportunity to increase on this measure—those who said at Wave 1 this description is either "not true at all" or "somewhat true" of them. Those who stayed the same on this measure or identified less with it were coded 0; those who increased their identification as "spiritual but not religious" are coded 1.

Key Independent Variable

Our key independent variable is a dichotomous measure of educational attainment. Respondents who had ever attended a four-year college are coded 1; those who had never attended a four-year college are coded 0. Respondents still enrolled in high school are excluded from the analysis.³

Key Mediating Variables

We include a number of variables that measure the characteristics of respondents' social networks and their exposure to diversity. We include measures of the respondent's relational closeness to their mother and father at Wave 3. These variables range in value from "not close at all" (coded 1) to "extremely close" (coded 6). Those who were not in contact with their mothers or fathers were coded 1, and a dummy variable for parent absence was included in the model. We also include a set of dummy variables tapping respondents' living situation at Wave 3. This variable is a set of four binary variables measuring whether respondents live with their parents (reference group), another person's home, their own place or in group quarters. We also include two measures that tap respondents' religious networks. The first is a measure of peer group religious homophily. NSYR asked respondents to identify up to five close friends other than their parents. They then asked, "How many, if any, of these people are similar to you in their beliefs about religion?" From this information, we created a measure of the percentage of friends who shared religious beliefs. Those who reported zero friends ($n = 6$) are coded as 0. This variable ranges from 0-100. The second measure of religious networks is a measure of the respondents' Wave 3 religious service attendance. This measure

ranges from “never” (coded 0) to “more than once a week” (coded 5). Importantly, we also control for each of these factors at Wave 1 (with the exception of living situation, since almost all lived with parents or other family members). Thus, these mediating variables can be interpreted as *changes* in social network factors.⁴

Control Variables

In addition to the controls for the Wave 1 mediating variables (maternal and paternal closeness, proportion of friends who share religious beliefs, and religious service attendance), we include a number of other sociodemographic and religious controls that may co-vary with educational attainment and religious beliefs. Specifically, we control for Wave 1 gender (female = 1), region of residence (South, Northeast, Midwest, West), race, mother’s education, parents’ marital status, self-reported importance of religion and religious affiliation (following the RELTRAD classification). We also control for Wave 3 age, marital status and parenthood status. We also include dummy variables tapping mother and father absence at Wave 1. (For descriptive statistics of key measures, see Appendix A.)

Analytic Approach

We begin our analysis in Table 1 by reporting bivariate relationships among educational attainment and change in religious beliefs. This gives a descriptive picture of the change occurring. We then move to our multivariate analyses in tables 2-8. Each table consists of three logit regression models predicting each of the seven dependent variables. The first models include the educational attainment variable and all the control variables. The second models add the parental relationship, living situation and friendship network variables. The final model adds the respondents’ embeddedness in a religious community. This nested modeling strategy allows us to examine how the mediating variables explain the relationship between educational attainment and change in religious beliefs. All analyses apply the longitudinal weight included in the NSYR data.

Results

We begin with basic descriptive statistics for liberalizing shifts among the sample. Table 1 shows that most emerging adults do not experience significant liberalization in their religious beliefs, irrespective of whether they attend college. On most measures, only about 25 percent to 35 percent of emerging adults experience liberalizing shifts. Further, there are only slight variations between students and non-students on most measures.⁵ However, college students do experience increased doubts about religion at a somewhat higher rate (30% vs. 22%), while non-students report decreased belief in a personal god (29% vs. 23%) and increased opposition to conversion attempts (38% vs. 32%) at higher rates.

Table 2 examines the impact of college attendance on belief in a personal god. Model 1 reveals that, contrary to conventional wisdom, college students are *less likely* to stop believing in a personal god than non-students. This difference remains

marginally significant even when network variables are accounted for in Model 2. Paternal closeness, living in group quarters and peer homophily are all negatively associated with the development of unorthodox beliefs about God. In Model 3, however, religious service attendance is strongly negatively associated with the development of liberal conceptions of God, and introducing it appears to completely mediate the effect of college attendance. Religious peer groups, paternal closeness and group living continue to have significant direct effects in this model.

Table 3 examines the impact of college attendance on supernatural beliefs. Model 1 shows that college attendance appears to have no impact on whether an emerging adult stops believing in miracles. The addition of network variables in Model 2 does not change this finding, but it does indicate that paternal and maternal closeness and peer homophily correlate negatively with the development of naturalistic beliefs, while living independently correlates positively. Model 3 demonstrates that religious service attendance is strongly negatively associated with decreased belief in miracles, but that paternal relationship and peer homophily continue to exert a negative influence on belief liberalization. College attendance has no significant effect on belief in miracles in any model.

Table 4 examines the impact of college attendance on religious doubt. Model 1 shows that college students are significantly more likely to experience increased doubts about religion than are non-students. Model 2 reveals that those with more religiously similar friends are less likely to develop religious doubts, as are those who have closer relationships with their father. These social ties eliminate the significance of college attendance. However, the positive effect of college attendance becomes marginally significant again in Model 3, after religious service attendance is accounted for. College students are more likely to entertain increased doubts than non-attenders, an association that appears to be explained primarily—though not entirely—by social network factors.⁶

Table 5 examines the impact of college attendance on religious reservedness. Model 1 indicates that college students are considerably less likely to develop the belief that conversion efforts are unacceptable. When the relationship variables are introduced in Model 2, however, the significance of this effect becomes mar-

Table 1: Percent with Religious Characteristics by Educational Attainment

	Ever Attended		Never Attended	
	Overall	Four-Year College	Four-Year College	Never Attended
No longer believes in personal God	25.4	23.2		29.1
No longer believes in miracles	23.5	23.4		23.6
Has increased doubts about religion	27.0	29.7		21.5
No longer believes it is OK to convert others	34.4	32.3		38.3
No longer believes it is not OK to pick and choose religious beliefs	42.8	41.8		44.3
No longer believes only one religion is true	34.3	32.9		36.9
Has become more "spiritual but not religious"	33.1	32.0		35.0

Note: Percentages are column percentages.

Table 2: Odds Ratios From Logit Regression Models Predicting No Longer Believes in Personal God

	Model 1	Model 2	Model 3
Ever attended four-year college, W3	.70*	.73†	.87
Closeness to mother, W3		.88	.90
Closeness to father, W3		.76**	.77**
Lives in another person's home, W3		.70	.66
Lives in own place, W3		.92	.73
Lives in group quarters, W3		.63*	.62*
Percentage of friends who share religious beliefs, W3		.99***	.99**
Religious service attendance, W3			.68***
Female, W1	.41***	.39***	.35***
Lived in Northeast, W1	1.83**	1.83*	1.89*
Lived in Midwest, W1	1.32	1.23	1.33
Lived in West, W1	1.62*	1.65*	1.74*
Age, W3	.83**	.84*	.83**
Black, W1	.65	.65	.65
Hispanic, W1	.61†	.57*	.61†
Asian, W1	.44	.35†	.30
Other/ Indeterminable race, W1	.70	.72	.59
Mother had college degree, W1	1.12	1.13	1.24
Parents not broken up, W1	.95	.97	1.07
Religious service attendance, W1	.86**	.86**	.95
Importance of religion, W1	.79*	.78*	.89
Mainline Protestant, W1	2.47***	2.56***	1.92**
Black Protestant, W1	1.16	1.31	1.40
Catholic, W1	1.45†	1.53*	1.31
Jewish, W1	1.89	1.89	1.60
Mormon, W1	.26*	.24*	.24*
No religion, W1	1.21	1.32	1.43
Other religion, W1	2.07	2.13	2.53
Ever married, W3	1.38	1.49	1.73
Has child living with them, W3	.61	.61	.60
Closeness to mother, W1	.89	.92	.90
Closeness to father, W1	.99	1.14	1.15
Proportion of friends who share religious beliefs, W1	.99**	.99*	.99*

Notes: ***p < .001 **p < .01 *p < .05 †p < .10

N = 1,429

Models also contain a control for indeterminable religious tradition at Wave 1 and mother and father absence at waves 1 and 3. Reference categories are living with parents, lived in South, white and conservative Protestant.

ginal, suggesting that paternal closeness and peer homophily mediate the impact of college attendance. Model 3 indicates that religious service attendance is strongly negatively associated with development of opposition to conversion, further reduces the effect of college attendance on beliefs about conversion, and appears to mediate all of the significant effect of religious peer groups. Closer paternal relationships continue to be associated with reservedness in Model 3.

Table 3: Odds Ratios From Logit Regression Models Predicting No Longer Believes in Miracles

	Model 1	Model 2	Model 3
Ever attended four-year college, W3	.90	.86	1.04
Closeness to mother, W3		.84*	.87
Closeness to father, W3		.72***	.72**
Lives in another person's home, W3		.97	.73
Lives in own place, W3		1.68*	1.28
Lives in group quarters, W3		1.13	1.23
Percentage of friends who share religious beliefs, W3		.99***	.99**
Religious service attendance, W3			.61***
Female, W1	.93	.87	.77
Lived in Northeast, W1	1.73*	1.73*	1.71
Lived in Midwest, W1	1.35	1.35	1.53†
Lived in West, W1	1.08	1.12	1.28
Age, W3	.86*	.86†	.87†
Black, W1	.41*	.45†	.48†
Hispanic, W1	1.12	1.17	1.53
Asian, W1	.63	.67	.59
Other/ Indeterminable race, W1	.81	.87	.57
Mother had college degree, W1	1.42†	1.25	1.38
Parents not broken up, W1	.90	.90	1.07
Religious service attendance, W1	.85**	.85**	.95
Importance of religion, W1	.65***	.63***	.71**
Mainline Protestant, W1	1.82*	1.83*	1.39
Black Protestant, W1	1.79	1.93	2.18
Catholic, W1	1.27	1.38	1.20
Jewish, W1	2.35	2.29	2.43
Mormon, W1	.61	.72	1.10
No religion, W1	1.31	1.38	1.39
Other religion, W1	2.96†	3.08†	2.97
Ever married, W3	.93	.81	1.00
Has child living with them, W3	.36*	.32**	.29**
Closeness to mother, W1	.92	1.02	.99
Closeness to father, W1	1.02	1.19†	1.21†
Proportion of friends who share religious beliefs, W1	1.00	1.00	1.00

Notes: ***p < .001 **p < .01 *p < .05 †p < .10

N = 1,308

Models also contain a control for indeterminable religious tradition at Wave 1 and mother and father absence at waves 1 and 3. Reference categories are living with parents, lived in South, white and conservative Protestant.

Table 6 examines the impact of college attendance on religious inclusivity. Model 1 indicates that college attendance has no effect on inclusive views of religious truth, a finding that continues across all models. In Model 2, peer group homophily is negatively associated with the development of inclusive beliefs, but the other network variables are insignificant. When religious attendance is added in Model 3, the model shows that attendance is highly negatively associated with the belief that multiple religions may be

Table 4: Odds Ratios From Logit Regression Models Predicting Increased Doubts about Religion

	Model 1	Model 2	Model 3
Ever attended four-year college, W3	1.55*	1.38	1.44†
Closeness to mother, W3		1.06	1.06
Closeness to father, W3		.78**	.78**
Lives in another person's home, W3		.67	.63
Lives in own place, W3		1.36	1.26
Lives in group quarters, W3		1.33	1.32
Percentage of friends who share religious beliefs, W3		.99***	.99***
Religious service attendance, W3			.89*
Female, W1	.77	.75†	.74†
Lived in Northeast, W1	1.53†	1.54†	1.50
Lived in Midwest, W1	.93	.92	.93
Lived in West, W1	1.39	1.40	1.43
Age, W3	.88*	.89†	.89†
Black, W1	.54	.53	.56
Hispanic, W1	1.02	1.02	1.07
Asian, W1	.25	.26	.28
Other/ Indeterminable race, W1	1.03	1.14	1.12
Mother had college degree, W1	.85	.82	.84
Parents not broken up, W1	1.04	1.02	1.05
Religious service attendance, W1	.98	.97	1.00
Importance of religion, W1	1.07	1.10	1.15
Mainline Protestant, W1	1.16	1.08	.98
Black Protestant, W1	.85	.87	.83
Catholic, W1	.89	.89	.85
Jewish, W1	1.43	1.11	1.05
Mormon, W1	.38*	.39*	.41†
No religion, W1	3.50†	3.48†	3.84†
Other religion, W1	1.25	1.12	1.09
Ever married, W3	.86	.81	.86
Has child living with them, W3	.68	.70	.70
Closeness to mother, W1	1.16	1.14	1.14
Closeness to father, W1	.99	1.15	1.15
Proportion of friends who share religious beliefs, W1	1.00	1.00	1.00

Notes: ***p < .001 **p < .01 *p < .05 †p < .10

N = 1,349

Models also contain a control for indeterminable religious tradition at Wave 1 and mother and father absence at Waves 1 and 3. Reference categories are living with parents, lived in South, white and conservative Protestant.

true, and the effect of peer homophily becomes marginally significant, suggesting that participation in a religious community may explain much of the peer homophily effect.

Table 7 examines the impact of college attendance on religious individualism. Model 1 indicates that college students are no more likely to come to believe that it is OK to pick and choose religious beliefs, and this finding holds across all models. Model 2 shows that network factors are more predictive of this outcome. Peer homophily has

Table 5: Odds Ratios From Logit Regression Models Predicting No Longer Believes It Is OK to Convert Others

	Model 1	Model 2	Model 3
Ever attended four-year college, W3	.69*	.70†	.79
Closeness to mother, W3		.94	.99
Closeness to father, W3		.83*	.83*
Lives in another person's home, W3		1.05	1.00
Lives in own place, W3		1.28	1.10
Lives in group quarters, W3		.88	.94
Percentage of friends who share religious beliefs, W3		.99*	1.00
Religious service attendance, W3			.74***
Female, W1	1.79**	1.75**	1.74**
Lived in Northeast, W1	1.15	1.20	1.21
Lived in Midwest, W1	.97	.95	1.00
Lived in West, W1	1.11	1.13	1.13
Age, W3	.91	.90	.91
Black, W1	.30**	.35**	.42*
Hispanic, W1	1.28	1.28	1.38
Asian, W1	.44	.36	.29
Other/ Indeterminable race, W1	1.25	1.35	1.31
Mother had college degree, W1	1.17	1.13	1.20
Parents not broken up, W1	.78	.82	.93
Religious service attendance, W1	.80***	.80***	.88*
Importance of religion, W1	.80*	.80*	.86
Mainline Protestant, W1	2.37***	2.35**	1.98**
Black Protestant, W1	3.09*	2.90*	2.62*
Catholic, W1	2.83***	2.92***	2.60***
Jewish, W1	2.17	2.32	1.58
Mormon, W1	.17*	.17*	.22*
No religion, W1	1.01	.94	1.00
Other religion, W1	1.65	1.81	1.88
Ever married, W3	1.49	1.55	2.04†
Has child living with them, W3	.69	.69	.72
Closeness to mother, W1	1.09	1.11	1.07
Closeness to father, W1	1.04	1.16†	1.19†
Proportion of friends who share religious beliefs, W1	1.00	1.00	1.00

Notes: ***p < .001 **p < .01 *p < .05 †p < .10

N = 1,190

Models also contain a control for indeterminable religious tradition at Wave 1 and mother and father absence at waves 1 and 3. Reference categories are living with parents, lived in South, white and conservative Protestant.

a significant negative effect on the adoption of individualistic beliefs, as does living in another person's home or in group quarters. Living alone, by contrast, has a marginally significant positive effect. Model 3 demonstrates that religious service attendance is, again, strongly negatively associated with the development of individualistic beliefs. Attendance appears to mediate the independent living effect, but not those of peer homophily or the effects of living in another person's home or in group quarters. College continues to have no effect on propensity to approve of picking and choosing.

Table 6: Odds Ratios From Logit Regression Models Predicting No Longer Believes Only One Religion Is True

	Model 1	Model 2	Model 3
Ever attended four-year college, W3	.86	.89	1.11
Closeness to mother, W3		1.13	1.25
Closeness to father, W3		.89	.91
Lives in another person's home, W3		1.03	.72
Lives in own place, W3		1.33	.79
Lives in group quarters, W3		.75	.63
Percentage of friends who share religious beliefs, W3		.99*	.99†
Religious service attendance, W3			.62***
Female, W1	1.58†	1.53†	1.45
Lived in Northeast, W1	.69	.66	.53†
Lived in Midwest, W1	.82	.90	.84
Lived in West, W1	.54†	.54†	.48†
Age, W3	.86†	.83†	.79*
Black, W1	.24*	.24*	.16**
Hispanic, W1	.73	.78	.77
Asian, W1	1.63	1.82	2.77
Other/ Indeterminable race, W1	.22*	.23*	.17**
Mother had college degree, W1	1.00	1.05	1.22
Parents not broken up, W1	.57*	.60†	.81
Religious service attendance, W1	.98	.98	1.13
Importance of religion, W1	.66**	.66**	.78
Mainline Protestant, W1	3.61**	3.39**	2.84**
Black Protestant, W1	4.74**	5.27**	6.70**
Catholic, W1	6.85***	7.38***	8.06***
Jewish, W1	—	—	—
Mormon, W1	.98	.99	1.58
No religion, W1	12.09*	12.71*	14.94**
Other religion, W1	1.95	2.08	3.35
Ever married, W3	.47†	.44†	.62
Has child living with them, W3	.94	.94	1.50
Closeness to mother, W1	.93	.89	.87
Closeness to father, W1	.93	1.03	1.02
Proportion of friends who share religious beliefs, W1	.99**	.99*	.99*

Notes: ***p < .001 **p < .01 *p < .05 †p < .10

N = 623

Models also contain a control for indeterminable religious tradition at Wave 1 and mother and father absence at waves 1 and 3. Reference categories are living with parents, lived in South, white and conservative Protestant.

Finally, Table 8 examines the impact of college attendance on religious independence. College attendance is not significantly correlated with becoming more likely to identify as “spiritual but not religious” in any of the models, nor are any of the network variables when added in Model 2. Heightened religious service attendance, however, is negatively associated with religious independence, a finding not particularly surprising given the common equation of religious service attendance and being religious.

Table 7: Odds Ratios From Logit Regression Models Predicting No Longer Believes It Is Not OK to Pick and Choose Religious Beliefs

	Model 1	Model 2	Model 3
Ever attended four-year college, W3	.81	.82	.90
Closeness to mother, W3		.90	.92
Closeness to father, W3		.90	.93
Lives in another person's home, W3		.51*	.48*
Lives in own place, W3		1.40†	1.21
Lives in group quarters, W3		.62*	.62*
Percentage of friends who share religious beliefs, W3		.99***	.99**
Religious service attendance, W3			.79***
Female, W1	.92	.90	.90
Lived in Northeast, W1	.97	1.14	1.12
Lived in Midwest, W1	1.03	1.04	1.08
Lived in West, W1	1.00	.97	1.01
Age, W3	1.01	.98	.98
Black, W1	.38**	.40*	.46*
Hispanic, W1	.60†	.64	.70
Asian, W1	2.10	2.10	2.28
Other/ Indeterminable race, W1	1.08	1.11	1.01
Mother had college degree, W1	1.37†	1.39†	1.50*
Parents not broken up, W1	.85	.83	.87
Religious service attendance, W1	.99	.98	1.05
Importance of religion, W1	.84*	.86†	.93
Mainline Protestant, W1	1.94*	1.73*	1.53
Black Protestant, W1	2.62*	2.87**	2.57*
Catholic, W1	2.52***	2.73***	2.47***
Jewish, W1	1.32	1.08	1.24
Mormon, W1	.57	.62	.72
No religion, W1	2.00†	2.05†	1.91†
Other religion, W1	.79	.79	.76
Ever married, W3	1.42	1.23	1.37
Has child living with them, W3	.90	.84	.92
Closeness to mother, W1	.96	1.02	1.04
Closeness to father, W1	1.00	1.04	1.06
Proportion of friends who share religious beliefs, W1	.99†	1.00	1.00

Notes: ***p < .001 **p < .01 *p < .05 †p < .10

N = 1,140

Models also contain a control for indeterminable religious tradition at Wave 1 and mother and father absence at waves 1 and 3. Reference categories are living with parents, lived in South, white and conservative Protestant.

Interaction Effects

In Table 9, we explore variations by religious tradition. These models are parallel to those in tables 2-8 but include an education-religious tradition multiplicative interaction term. In the interest of space, we do not display all the odds ratios, similar to those in previous tables, just the marginal effect of educational exposure for Wave 1 adherents to each religious group. Significant interaction terms among the groups

Table 8: Odds Ratios From Logit Regression Models Predicting “Spiritual but Not Religious” More True Now

	Model 1	Model 2	Model 3
Ever attended four-year college, W3	.94	.93	.99
Closeness to mother, W3		1.04	1.06
Closeness to father, W3		.98	.99
Lives in another person's home, W3		.96	.92
Lives in own place, W3		1.07	.97
Lives in group quarters, W3		.94	.96
Percentage of friends who share religious beliefs, W3		1.00	1.00
Religious service attendance, W3			.83***
Female, W1	.82	.81†	.80†
Lived in Northeast, W1	.96	.99	.97
Lived in Midwest, W1	.89	.90	.91
Lived in West, W1	.97	1.00	1.02
Age, W3	1.08	1.07	1.07
Black, W1	.54*	.56*	.62†
Hispanic, W1	.94	.93	1.02
Asian, W1	.98	.96	1.01
Other/ Indeterminable race, W1	.96	1.00	.98
Mother had college degree, W1	.80	.81	.83
Parents not broken up, W1	.82	.79†	.82
Religious service attendance, W1	.98	.99	1.04
Importance of religion, W1	1.14†	1.14†	1.23**
Mainline Protestant, W1	1.25	1.22	1.09
Black Protestant, W1	1.92*	1.88*	1.81†
Catholic, W1	1.18	1.16	1.06
Jewish, W1	1.25	1.28	1.18
Mormon, W1	.57	.54	.63
No religion, W1	1.20	1.21	1.20
Other religion, W1	1.42	1.34	1.33
Ever married, W3	.84	.84	.94
Has child living with them, W3	1.28	1.28	1.30
Closeness to mother, W1	1.03	1.00	.99
Closeness to father, W1	.96	.97	.98
Proportion of friends who share religious beliefs, W1	1.00	1.00	1.00

Notes: ***p < .001 **p < .01 *p < .05 †p < .10

N = 1,847

Models also contain a control for indeterminable religious tradition at Wave 1 and mother and father absence at waves 1 and 3. Reference categories are living with parents, lived in South, white and conservative Protestant.

are denoted with superscript letters. Educational effects for mainline Protestants appear to be distinct from some other groups—especially conservative Protestants and Catholics—when it comes to developing unorthodox, naturalistic, inclusive, reserved and individualistic beliefs. Although the odds ratios for college attendance among mainline Protestants are not significant for discontinued belief in a personal god and only significant or marginally significant in some models for these other

Table 9: Marginal Effect of Education (Odds Ratios) for Respondents in Different Religious Traditions

	Model 1	Model 2	Model 3
Panel A. No Longer Believes in Personal God			
College Effect for W1			
Conservative Protestant	.63† ^a	.64† ^b	.83 ^a
Mainline Protestant	1.79 ^{a,j}	2.06 ^{b,k,l}	2.01 ^{a,j}
Black Protestant	.62	.76	.80
Catholic	.47* ^{i,o}	.46* ^{k,o}	.58 ^{l,p}
No religion	1.57 ^o	1.69 ^o	2.22 ^p
Other religions	.56	.59 ^l	.62
Panel B. No Longer Believes in Miracles			
College Effect for W1			
Conservative Protestant	.62†	.57† ^a	.76
Mainline Protestant	1.44	1.57 ^a	1.76
Black Protestant	.98	1.02	1.13
Catholic	1.33	1.24	1.33
No religion	1.34	1.43	1.87
Other religions	.71	.67	.88
Panel C. Increased Doubts About Religion			
College Effect for W1			
Conservative Protestant	1.75*	1.58	1.70†
Mainline Protestant	.95	.83	.85
Black Protestant	1.41	1.30	1.39
Catholic	1.53	1.26	1.28
No religion	1.57	1.34	1.45
Other religions	1.51	1.57	1.57
Panel D. No Longer Believes it is OK to Convert Others			
College Effect for W1			
Conservative Protestant	.47**	.46** ^a	.53*
Mainline Protestant	1.04	1.17 ^a	1.16
Black Protestant	.87	.89	.90
Catholic	.70	.70	.88
No religion	1.12	1.05	1.14
Other religions	1.00	1.09	1.27
Panel E. No Longer Believes Only One Religion is True			
College Effect for W1			
Conservative Protestant	.79	.83	1.24
Mainline Protestant	2.26	2.71 ^g	4.88* ^{h,i}
Black Protestant	.49	.51 ^g	.49 ^h
Catholic	1.15	.96	.76 ⁱ
No religion	.11	.06	.37
Other religions	.98	1.17	.80
Panel F. No Longer Believes it is Not OK to Pick and Choose Religious Beliefs			
College Effect for W1			
Conservative Protestant	.43** ^{c,d,f}	.45** ^{c,d,f}	.52* ^{b,d,f}
Mainline Protestant	2.27 ^{c,l}	2.53† ^{c,g,m}	2.18 ^{b,l}
Black Protestant	.79 ⁿ	.71 ^{g,n}	.72 ⁿ
Catholic	1.49 ^d	1.57 ^{d,q}	1.73 ^{d,q}
No religion	2.60† ^{f,n,r}	2.49 ^{f,n,r}	2.63† ^{f,n,r}
Other religions	.57 ^{l,r}	.55 ^{m,q,r}	.59 ^{l,o,r}

Table 9 *continued*

	Model 1	Model 2	Model 3
Panel G. "Spiritual but Not Religious" More True Now			
College Effect for W1			
Conservative Protestant	.96	.95	1.06
Mainline Protestant	1.01	.97	.98
Black Protestant	.83	.85	.92
Catholic	1.10	1.09	1.17
No religion	.65	.61	.61
Other religions	.96	.97	1.00

Notes: *** $p < .001$ ** $p < .01$ * $p < .05$ † $p < .10$

Models and Ns are identical to those in previous tables, except LDS and Jewish respondents are grouped with the "other religion" category due to small cell sizes in interactions. *Significant at $p < .10$* : ^aConservative Protestant X Mainline Protestant, ^gMainline Protestant X Black Protestant, ⁱMainline Protestant X Catholic, ^jMainline Protestant X other religion, ⁿBlack Protestant X no religion, ^cCatholic X no religion, ^eCatholic X other religion. *Significant at $p < .05$* : ^bConservative Protestant X Mainline Protestant, ^eConservative Protestant X Catholic, ^hMainline Protestant X Black Protestant, ^jMainline Protestant X Catholic, ^mMainline Protestant X other religion, ^pCatholic X no religion, ^rno religion X other religion. *Significant at $p < .01$* : ^cConservative Protestant X Mainline Protestant, ^dConservative Protestant X Catholic, ^fConservative Protestant X no religion, ^kMainline Protestant X Catholic.

outcomes, the odds ratios are large and the cell sizes small, suggesting that a larger sample may reveal *positive* effects of college attendance for mainline Protestants on these measures. In many cases, those without any religious affiliation at Wave 1 also appear to liberalize religiously as the result of their college experience. Again, however, small cell sizes impede statistical significance among this group. Finally, attending four-year college may deter liberalization among conservative Protestants on additional outcomes. College attendance has a marginally significant negative effect on naturalistic beliefs in the first two models and a strong and consistent negative effect on reservedness and religious individualism across models, although some of the educational effect for these latter outcomes is mediated by social network factors.

Discussion

Several key findings emerge from these results. First, and most importantly, contrary to longstanding scholarly wisdom, attending college appears to have no liberalizing effect on most dimensions of religious belief. In fact, on some measures, college students appear to liberalize *less* than those who never attended college. College students are less likely to stop believing in a personal god and less likely to stop believing in the propriety of conversion attempts. On the other hand, they are more likely to develop doubts about their religious beliefs. In the main, however, the effect of college on students' religious beliefs appears to be extremely weak. Although significant

minorities of emerging adults become more liberal in their religious beliefs, college itself does not appear to be the culprit. College students do not liberalize any more than those who do not go to college.⁷

In fact, the case for the null (and perhaps protective) effects of college on traditional religious belief is even stronger than it appears from these results. In supplementary analyses (not shown), college attendance also failed to predict differences on six other variables measuring religious beliefs. College students are also no more likely than non-students to stop believing in a judgment day, stop believing in an afterlife, stop believing in angels, stop believing in demons (except in the final two models, where social networks appear to suppress a positive effect of college attendance), become more uncertain about the existence of God, or abandon the belief that active congregational participation is a necessary aspect of being religious. Thus, on 10 out of 13 possible beliefs, attending college shows no net liberalizing effect before accounting for social networks; on two others, college appears to support traditional beliefs; on only one outcome—increased religious doubt—does college appear to undermine traditional religious belief. In the debate over how college influences religious beliefs, this study overwhelmingly supports those who claim that its influence is largely negligible, and perhaps even somewhat protective of traditional religious belief.

Second, to the extent that college does affect students' beliefs, this study finds that much of that effect can be explained by the social contexts in which students are embedded. Net of parental relationships, living situation, peer groups and religious attendance, college appears to have a significant effect only on belief in demons, and that appears to be a case of suppression rather than mediation. The positive effect of college on religious doubting is mostly explained by social networks (though it is marginally significant in the final model), and the conservative effect of college on beliefs in a personal god and the propriety of conversion appear to be entirely mediated by these social variables. This indicates that, in addition to being generally weak, college's effect on religious belief is fragmented, partial and largely explained by social ties.

Across most measures, the most consistent predictors of increased liberalization are not college attendance, but rather how often one attends religious services and what proportion of one's friends are coreligionists. On nearly every measure, those whose friendship circles were less religiously diverse and those who attended services more regularly were less likely to develop more liberal beliefs. Of these, service attendance appears to be the more powerful. Service attendance was strongly negatively correlated with belief liberalization on all seven measures. Peer homophily also correlated significantly in the final models on four of the seven measures (and marginally so on a fifth), after controlling for religious attendance.

Parental relationships also predicted the likelihood of belief liberalization.⁸ A close paternal relationship appears to discourage the development of an impersonal conception of God, the abandonment of belief in miracles, increased doubts about religion, and increased religious reservedness. It may be that those with closer paternal relationships are simply more comfortable with traditional forms of authority, such as those

emphasized in orthodox Christian beliefs (Lakoff 2002). On the other hand, because studies have shown that religious fathers tend to be more involved in family life and parenting than those who are less religious (Wilcox 2002), these findings may instead indicate that children with closer paternal relationships were raised by more devout parents, and thus more effectively socialized into their religious beliefs.

Perhaps surprisingly, college appears to have a somewhat stronger protective effect on conservative Protestant students' beliefs. For most beliefs, college has the same effect among conservative Protestants as it has among all young adults, but conservative Protestants do liberalize less on two additional dimensions of belief: reservedness and naturalism, though the difference on the latter is only marginally significant. Mainline Protestant students, by contrast, appear more likely to liberalize on some measures. It may be that certain cultural features of the religious traditions themselves predispose mainline and conservative Protestant students to be more or less open to liberal conceptions of religion. Alternatively, it may be that opportunities for religious participation and networking on campus vary among groups, leading to divergent socializing patterns. Although mainline campus ministries have declined in recent years, evangelical ministries have expanded rapidly (Schmalzbauer 2007), and these may help evangelical students sustain traditional religious beliefs.

Turning to the two mechanisms of collegiate influence, this study suggests that, on religious matters, at least, the "cultural broadening" effect of college may be less than is typically thought. While college may expose students to religious diversity, and while this exposure may lead to liberalization in some students, there are very few indications that this exposure leads to markedly different outcomes among students and non-attenders. To be sure, the relationship between religious diversity and religious belief is complicated. The effect of college on increased doubt suggests that exposure to new beliefs and ideas may indeed lead students to understand their faith in more relativistic terms than nonstudents. However, this statement must be qualified because, generally speaking, college students are also less likely to become more religiously reserved than their nonstudent counterparts.

What might account for these weak effects? It may be that cultural broadening occurs earlier, in high school, thanks to increased diversity in the general population. The observed negative effect of age on liberalization in many of these outcomes lends credence to this view. Or it may be that college campuses are no longer substantially more diverse than the social worlds outside their borders. In additional analyses (not shown), we found that the friendship circles of those who attended college were actually less religiously diverse than those of nonattenders, but the differences were neither substantively nor statistically significant. This may suggest that cultural broadening occurs in roughly equivalent amounts both inside and outside the college setting.

More likely, we believe, in light of our findings on the effect of network variables, is that college students are self-segregating within the college setting. Moral worldviews have a strong independent effect on social network composition (Vaisey and Lizardo 2010). It seems likely that this effect would be quite strong in the college setting,

where old social networks are typically disrupted and a wide variety of potential friendship and associational networks are available to students. Our results suggest that, for many students, the smaller social worlds into which they choose to enter may provide essential supports for the preservation of traditional beliefs, by reducing exposure to religious diversity, providing spaces in which religion can be safely ignored, or providing countervailing supports that allow students to retain their beliefs amidst diversity. The dynamics of religious belief, in other words, may have substantial parallels to the dynamics of religious practice and disaffiliation as reported in other studies (e.g., Hill 2009; Uecker et al. 2007). Self-segregation of students into “moral communities” on campus may effectively undercut any “cultural broadening” effect of college, and thus any additional propensity for religious liberalization.

Finally, our study raises doubts about the proposed cognitive pathways to liberalization. Although our dataset does not contain measures that would permit us to directly assess these cognitive processes, we did find that—with the single, marginal exception of doubt—college students are no more likely than nonstudents to experience belief liberalization once social aspects are controlled, suggesting cognitive effects of college attendance are minimal. Our indirect measures may conceal differences among students associated with their choice of major or other academic experiences (e.g., Reimer 2010). Alternately, it may indicate that students can successfully compartmentalize their religious beliefs from other areas. Pancer and colleagues (1995) found that more traditional religious students tended to have similar levels of complexity in thinking about nonreligious issues as less traditional students, but much less complex thinking about religious issues. Our data cannot speak to either of these particular hypotheses, but they do raise a set of questions for further research.

Conclusion

Previous studies of the relationship between higher education and religious belief are torn between those finding a liberalizing effect, and those finding little effect. Our study, whose research design overcomes many of the methodological limitations of previous studies, provides overwhelming evidence in favor of those finding minimal impact. It also illustrates the centrality of social factors in mediating the relationship between college attendance and change in religious beliefs when differences do exist.

While contributing to the resolution of this debate, our study also suggests several avenues for future research. First, while we find that attending college does not make emerging adults more likely to develop liberal beliefs, this finding remains in tension with studies of the broader population, which regularly find education to be associated with less orthodox religious beliefs (e.g., Petersen 1994; Sherkat 1998; Wuthnow 2007). There are at least two alternative explanations to a general education effect that merit investigation. First, the association of education and religious liberalism may be a legacy of a previous era in which higher education acted more strongly to liberalize students’ beliefs. Some scholars have indeed suggested that there may be important period or cohort effects on the college-belief relationship (Clydesdale 2007), but to

our knowledge this possibility has not been systematically assessed. Second, college students may be more likely to differentially associate with those with more liberal religious beliefs after college, as the result of the higher-status social networks and economic groupings into which a college degree provides entrée (Stevens, Armstrong and Arum 2008). Future analyses of the general population should consider these and other potential explanations, by explicitly examining how cohort and network effects may interact with educational attainment to explain religious liberalization.

Second, one of the more perplexing findings of this study is that college students appear *less likely* to liberalize on measures of orthodoxy and reservedness than nonstudents. This finding obviously has implications for how we understand the collegiate environment, and how it might or might not differ from other social settings. One possible explanation is that the broader culture is now substantially more like the college setting in terms of the ideas and people it exposes people to. Nonstudents may be just as likely to imbibe more liberal cultural and religious ideas, thanks to the triumph of liberal Protestantism in shaping the broader culture (Smith and Snell 2009). Alternatively, the dominant type of campus culture may have changed into one that is more protective of traditional religious beliefs than other contexts, thanks to norms of religious tolerance and/or faculty reluctance to engage with students' religious beliefs (Cherry et al. 2001; Nash 2001; Uecker et al. 2007). Yet the extent to which either of these theories is true remains unclear. Arriving at a more satisfactory understanding of how higher education compares with non-college settings will require at least three additional types of research: more studies of nonstudent populations, including studies of their lived experience and religious beliefs; closer examination of the religious communities that students enter, as well as the dynamics of religion within student peer networks; and additional investigations into the dynamics of religion on college campuses, both contemporary and historical.

In sum, college students are no more likely to develop more liberal religious beliefs than those who do not attend. In some cases, college students actually appear more likely to retain their initial beliefs than nonstudents. These findings indicate that college's effect on students' religious beliefs is both weak and fragmented. Further, change in religious beliefs appears instead to be more strongly associated with network effects, particularly parental relationships, the proportion of friends who are coreligionists, and service attendance. The importance of these social factors suggests both the validity and the limitations of the "cultural broadening" theory of religious liberalization on college campuses. They also suggest that the multiplicity of social worlds on college campuses, where students join together into innumerable "moral communities," may help to sustain specific religious beliefs, not only religious affiliation, salience or practice as previous studies had indicated.

Notes

1. This operationalization is most appropriate for predominantly Christian contexts because in other traditions (e.g., Buddhism), less tension would exist between some of these dimensions (e.g., inclusivity) and traditional beliefs.
2. Some details about sample attrition are merited here. Those who participated in the Wave 3 survey do differ from those who did not in some respects. Respondents who dropped out were less likely to be female, white, mainline Protestant, Mormon, have a mother with a college degree, have attended religious services at least weekly, and to say religion was at least very important in their daily lives; and more likely to have been black Protestant or not religious. It is impossible for us to say exactly how this affects our estimates, but we suspect we may slightly underestimate religious liberalization because of the strong associations among gender, religiosity and traditional belief maintenance. Still, this underestimation is unlikely to be large since the study dropouts comprise less than a fourth of the original sample. Furthermore, we can think of no conceptual reason why the relationship between college attendance and belief maintenance would vary for those who fell out of the sample; therefore, we do not believe sample attrition affects our estimates in the multivariate tables. Detailed methodological information about the NSYR is available online at www.youthandreligion.org.
3. We experimented with other ways of coding this variable (details available from first author), but this simple dichotomous measure of any exposure to four-year college yielded the most accurate, clear and parsimonious findings.
4. Although a college's religious affiliation has been shown to have important effects on students' religious engagements (Astin et al. 2011; Hill 2009), we do not examine it here because of space limitations. We plan to address this question elsewhere.
5. Those with liberal religious beliefs do not appear to be any more likely to attend college in the first place. Supplementary analyses revealed that, with the exception of individualistic beliefs, college actually appears to be attracting students with slightly more *conservative* religious beliefs.
6. Interestingly, when we include those who disaffiliated from religion altogether as having increased their doubts, there is no effect of college attendance in any model. This comports with other findings (e.g., Uecker et al. 2007) that suggest college attenders are less likely to disaffiliate from religion than non-attenders. We believe disaffiliation is a distinct process from doubting, however, and thus do not include these respondents in our main analysis.
7. Although our focus is on belief change, we also analyzed changes in service attendance and importance of faith. Consistent with other research (Smith and Snell 2009; Uecker et al. 2007), we found that college protects against attendance declines. However, we did not find any significant effect of college on declines in religious salience.
8. We likely underestimate the effect of parental relationships because there is no reason to assume that all parents hold traditional beliefs and should buffer their offspring from liberalization. Unfortunately, the NSYR dataset has data on only one parent and therefore does not permit us to account for the potential interaction between mother-and-father religiosity and parent-child relationships in these models.

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Appendix A. Descriptive Statistics of Key Study Variables

	Mean/ Standard Deviation							Range
	Personal God Sample	Miracles Sample	Doubts Sample	Conversion Sample	Religious Exclusivity Sample	Picking and Choosing Sample	Spiritual Not Religious Sample	
No longer believes in personal God	.25	—	—	—	—	—	—	0-1
No longer believes in miracles	—	.23	—	—	—	—	—	0-1
Has increased doubts about religion	—	—	.27	—	—	—	—	0-1
No longer believes OK to convert others	—	—	—	.34	—	—	—	0-1
No longer believes only one religion true	—	—	—	—	.34	—	—	0-1
No longer believes not OK to pick and choose religious beliefs	—	—	—	—	—	.43	—	0-1
Has become more "spiritual but not religious"	—	—	—	—	—	—	.33	0-1
Ever attended four-year college, W3	.63	.62	.67	.65	.65	.60	.63	0-1
Closeness to mother, W3	4.79/1.31	4.84/1.31	4.88/1.28	4.82/1.27	4.78/1.25	4.78/1.34	4.83/1.28	1-6
Closeness to father, W3	3.70/1.80	3.68/1.82	3.77/1.78	3.70/1.79	3.70/1.72	3.59/1.80	3.63/1.80	1-6
Mother absent, W3	.05	.05	.05	.04	.04	.05	.05	0-1
Father absent, W3	.22	.22	.21	.22	.17	.23	.23	0-1
Lives with parents, W3	.38	.39	.36	.35	.36	.38	.38	0-1
Lives in another person's home, W3	.07	.08	.07	.07	.06	.07	.07	0-1
Lives in own place, W3	.37	.36	.37	.39	.36	.37	.38	0-1
Lives in group quarters, W3	.18	.17	.20	.19	.22	.18	.18	0-1
% Friends who share religious beliefs, W3	63.76/33.11	65.32/33.36	65.38/32.92	64.02/33.21	69.12/31.16	65.68/33.21	62.60/33.96	0-100
Religious service attendance, W3	2.35/1.99	2.50/2.00	2.72/1.90	2.43/2.01	3.16/1.92	2.38/2.01	2.06/1.97	0-5
N	1,429	1,308	1,349	1,190	623	1,140	1,847	

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