5-2014

Religious/Worldview Identification and College Student Success

Nicholas A. Bowman

Bowling Green State University, nbowman@bgsu.edu

Vivienne Felix

Bowling Green State University, vfelix@bgsu.edu

Liane Ortis

Bowling Green State University, lortis@bgsu.edu

Follow this and additional works at: https://scholarworks.bgsu.edu/hied_pub

How does access to this work benefit you? Let us know!

Repository Citation

Bowman, Nicholas A.; Felix, Vivienne; and Ortis, Liane, "Religious/Worldview Identification and College Student Success" (2014). *Higher Education and Student Affairs Faculty Publications*. 1.

https://scholarworks.bgsu.edu/hied_pub/1

This Article is brought to you for free and open access by the Higher Education and Student Affairs at ScholarWorks@BGSU. It has been accepted for inclusion in Higher Education and Student Affairs Faculty Publications by an authorized administrator of ScholarWorks@BGSU.

Religious/Worldview Identification and College Student Success

Nicholas A. Bowman

Vivienne Felix

Liane Ortis

Bowling Green State University

Citation for the published version of this paper:

Bowman, N. A., Felix, V., & Ortis, L. (2014). Religious/worldview identification and college student success. *Religion & Education, 41*, 117-133.

Correspondence should be sent to Nicholas A. Bowman, Assistant Professor, Department of Higher Education and Student Affairs, Bowling Green State University, 330 Education Building, Bowling Green, OH 43403, 419.372.7305 (office), 419.372.9382 (fax), nbowman@bgsu.edu.

Religious/Worldview Identification and College Student Success**Abstract**

Higher education researchers and practitioners have become increasingly interested in the experiences and outcomes of religious minority students. Most research to date has focused on these students' religiosity and spirituality, and it has often lumped students from several diverse religions into a single minority group. This study explores the relationship between religious/worldview identification and student success (i.e., college satisfaction, perceived growth, academic achievement, and graduation). Differences between Buddhists, Hindus, Jews, Muslims, Protestants, and students who do not identify with any organized religion are examined using a large, multi-institutional dataset. Religious/worldview identification upon entering college is significantly related to various indicators of student success, and many of these differences persist even when accounting for students' demographics and precollege achievement.

Keywords: religious diversity, college students, college satisfaction, academic achievement, graduation

Religious/Worldview Identification and College Student Success

In recent years, college student religiosity and spirituality has received increased attention from both researchers and practitioners.¹ Clearly, religion and spirituality play an important role in students' lives: 81% of entering undergraduates report attending religious services frequently or occasionally, and 80% report having an interest in spirituality.² According to a comprehensive literature review, religiosity is related to a broad array of mental and physical health outcomes among general adult populations and college students.³ Some research has also examined whether college outcomes might be a product of students' religious affiliation (or lack thereof). For example, students who identify with a minority religion (i.e., non-Protestant and non-Catholic) tend to have decreased religious commitment and spiritual identification, along with a weaker commitment to their worldview and greater spiritual struggle, than religious majority students.⁴

However, the existing knowledge base is limited in some important ways. First, within most quantitative research, religious minorities are lumped together into a large, heterogeneous group that includes Baha'is, Buddhists, Hindus, Jains, Jews, Muslims, and other students. This practice is understandable in some respects, since the sample sizes for each religion are often too small to examine them separately. Moreover, Christian privilege⁵ can serve to marginalize many non-Christians in similar ways, so one might expect poorer outcomes to occur among all religious minority students.⁶ Unfortunately, this aggregation also leads to a lack of understanding about specific religious groups and whether a "religious minority" category is sufficiently homogeneous to be classified as a single group. As Alyssa Bryant⁷ duly noted in a previous issue of *Religion & Education*,

[t]he characteristics, practices, attitudes, and beliefs of religious minority students reflect a diverse set of worldviews and distinctive approaches to life. Without question, members of non-majority religions contribute not merely one "other" voice to the religious discourse in the U.S.,

but a *collection* of voices, each expressing its own unique perspectives, principles, and foundational ideologies and values.⁸

Second, when scholars and practitioners discuss college students' religious identification, they often focus on issues directly related to religion, spirituality, and ecumenism. However, religious identification is also associated with other types of college outcomes, such as well-being, college satisfaction, and even retention.⁹ Using a large, multi-institutional dataset, this study examines the extent to which religious/worldview identification is related to various indicators of college student success, including college satisfaction, perceived growth, academic achievement, and graduation. To provide a fine-grained analysis of several groups, we examine students from several religions separately (i.e., Buddhism, Hinduism, Judaism, Islam), plus Protestants and students who do not identify with an organized religion. We often use the word "worldview" in addition to "religion" to represent the presence and belief systems of students who do not identify with any formal religion.

Below, we describe the literature on college student attributes, experiences, and outcomes for each of these minority religions/worldviews. For readers who are interested in exploring this topic in more detail, Bryant,¹⁰ Higher Education Research Institute,¹¹ and Sax¹² provide excellent overviews of some of the entering characteristics of these religious minority groups.

Literature Review

Muslim Students

Considering their relatively small size within the college student and general U.S. population, Muslims receive a reasonable amount of attention. A national study of college student religion found that 1.0% of students are Muslim,¹³ and this figure is 0.6% for the general U.S. population.¹⁴ Since over 18 million undergraduates were enrolled in American colleges and universities in 2010,¹⁵ this means that there are almost 200,000 Muslim college students in the U.S. Within this population, 39% identify as Asian American, and 29% identify as an "other" race/ethnicity (i.e., not White, African American,

Latino/a, etc.¹⁶ Muslim students exhibit especially close ties to their mothers' and fathers' religion, with over 95 percent reporting the same affiliation as their parents.¹⁷ On average, Muslim students are highly religious and are committed to sharing their faith, whereas they have little religious skepticism or struggle.¹⁸

A number of small qualitative studies have examined Muslim student experiences on campus. In general, these have found that marginalization and discrimination play a considerable role in many students' identity and development.¹⁹ The perceived campus climate for Muslims, particularly for women who veil or wear the *hijab*, varies considerably within and across institutions.²⁰ According to a small-scale quantitative study, Muslim students are also more likely than Christian and Jewish students to participate in informal and cocurricular diversity experiences, and they are less satisfied than Jewish students with their overall college experiences.²¹ There is general agreement among scholars and practitioners for the need to create safe spaces for Muslim students on college campuses.²²

Buddhist and Hindu Students

Buddhists constitute 0.9% of undergraduates²³ and 0.7% of adults in the U.S.²⁴ While some work has explored Buddhism and Buddhists in America more generally,²⁵ very little is known about Buddhist college students. About 66% of Buddhist students are Asian American, and fewer than 2/3 of students share their parents' religion.²⁶ In general, Buddhist students have a strong interest in spiritual questions and understanding other religions.²⁷ Unlike Muslim students, Buddhists are very low on religious engagement and commitment (only 6% report praying daily), and high on religious skepticism.²⁸

In some ways, Hindu and Buddhist students are similar to one another, including the lack of literature that explores their experiences and outcomes within U.S. colleges and universities. Specifically, Hindu students are predominantly Asian American (84%),²⁹ and they are above average in terms of their charitable involvement, ethic of caring, and ecumenical worldview.³⁰ However, like Muslim students, almost all Hindus share their parents' religious affiliation, and the vast majority pray

occasionally or regularly.³¹ While research on Hindu students in the U.S. is virtually non-existent, Hinduism has become more popular as a topic of study within higher education curricula. Elfman³² discussed the growing interest of students of Indian descent in exploring Hinduism through formal coursework, which has created unique opportunities to explore the country and cultural heritage and to investigate personal perceptions regarding the Hindu faith. In addition, Claremont Lincoln University (in conjunction with the Nalanda Confluence Institute) recently announced a new graduate program in Hindu Dharma studies, with the intent of ultimately establishing a School of Hindu Studies.³³ Overall, Hindus constitute 0.7% of college students³⁴ and 0.4% of American adults.³⁵

Jewish Students

Given their somewhat larger population and salient role in the history of American higher education,³⁶ much more is known about Jewish college students. Jews constitute 2.0% of college students³⁷ and 1.7% of the general U.S. population.³⁸ Moreover, Jewish students are substantially overrepresented at elite American colleges and universities. For example, Kadushin and Tighe³⁹ surveyed students at eight selective institutions and found that the undergraduate populations ranged from 7-25% Jewish, with a median of 14%. Among all undergraduates, Jewish students tend to come from higher socioeconomic backgrounds, have higher high school grades, apply to more colleges, attend college further away from their parents, and hold higher degree aspirations.⁴⁰

Given their overrepresentation at selective institutions as well as the favorable views that many Americans hold toward Jews,⁴¹ Jewish college students are in a unique position as a religious minority. Despite these advantages, Jews have encountered substantial discrimination and hardships over decades and centuries, and adhering to Jewish religious and cultural customs can be difficult at many colleges and universities.⁴² While the vast majority of students on elite campuses reported that it is easy to be Jewish on their campus, the proportion of Jews within the institution is a strong predictor of this perception,⁴³ which suggests the importance of having a sufficiently large campus community to support

a religious minority group. Moreover, students from diverse religious backgrounds all perceive the presence of a three-tiered hierarchy, with Christians at the top, religious minorities in the middle, and non-religious individuals at the bottom.⁴⁴

Upon entering college, Jews are less religiously committed and less religiously and spiritually engaged than other students;⁴⁵ Jews also become increasingly skeptical of religion while attending college.⁴⁶ Some Jewish students frame their Judaism as both a religion and an ethnicity, so those who identify as Jewish can exhibit a wide range of Jewish practices and beliefs—or nonbelief—in God.⁴⁷ Some Jewish practices are quite common, such as lighting Hanukkah candles (78% of respondents), whereas others are far less common (29% maintain some degree of kosher eating habits on campus).⁴⁸ Jewish students report that engaging in these practices boosts their Jewish identity, regardless of the extent to which these practices are framed as religious or cultural.⁴⁹

Some research has also compared Jewish students to other students in terms of their well-being and self-confidence at the beginning of college.⁵⁰ Jewish students report slightly higher levels of emotional and physical health than other students, but they also report slightly higher levels of stress, depression, and use of anti-depressant medication. They also have higher scores on a host of academic and social self-ratings, including writing, math, and academic ability; intellectual and social self-confidence; leadership ability; and self-understanding. Similar to the vast majority of studies reported here, this analysis did not consider whether these religious differences might be explained by group differences in race/ethnicity, gender, socioeconomic status, or other factors.

Students Identifying with No Organized Religion

Putnam and Campbell⁵¹ have referred to those who are religiously unaffiliated as religious “nones,” which is an ideologically diverse group. Among religiously unaffiliated young adults, only 17% believe that there is no God, 35% are unsure in their beliefs, 47% believe in God, and 18% pray at least once a day.⁵² Nones are also an unstable group, as 30% of American adults who report no religious

affiliation actually report having a religious affiliation just one year later.⁵³ Despite this instability, nones are certainly the most rapidly growing “religious” group: The proportion of nones has almost doubled among first-year college students in 15 years, and this figure reached 24% in 2009.⁵⁴ For the first time ever, 20% of U.S. adults—along with 32% of adults under 30—identify as atheist, agnostic, or having no particular affiliation.⁵⁵

Perhaps not surprisingly, when examined as a single group, nones have the greatest religious skepticism and the lowest religiosity and spirituality of any religious/worldview identification.⁵⁶ Even when considering these (and other) entering characteristics, nones have the greatest increases in religious skepticism and the most pronounced decreases in religious commitment and spiritual identification.⁵⁷ They also experience less spiritual struggle and are less committed to their worldview than are religious majority students.⁵⁸ These disparities extend beyond spiritual and religious outcomes; nones have lowest college satisfaction and the greatest declines in subjective well-being, along with the least charitable involvement and compassionate self-concept, of any religion/worldview.⁵⁹ Scholars have discussed some of the various challenges that atheists, in particular, face within higher education and how college practitioners might work to create a positive environment for these students.⁶⁰

As noted earlier, religious engagement and commitment are associated with numerous positive outcomes for college students and adults.⁶¹ Therefore, can the large disparities in religiosity between nones and religious majority students account for these group differences in well-being and other outcomes? It appears that religiosity only partially explains these gaps.⁶² Also, while nones might be more likely to describe themselves as spiritual but not religious,⁶³ they actually score much lower than other students on measures of both religiosity and spirituality.⁶⁴

Present Study

To date, most studies of religious/worldview identification have examined students’ entry characteristics, while research that does explore student outcomes generally focus on issues of religion,

spirituality, and campus climate. This inquiry often relies on small, single-institution samples (which have limited generalizability) and does not consider whether any observed differences in experiences and outcomes might actually be attributable to other student characteristics. For instance, Muslim students are more likely to engage in college diversity experiences than Christians and Jews,⁶⁵ but is this simply because the majority of Muslims are students of color?

This study explores the relationship between religious/worldview identification and indicators of student success (college satisfaction, perceived growth, academic achievement, and graduation). In doing so, it seeks to expand and improve upon previous research in several ways. First, it uses a large, multi-institutional dataset that oversampled Asian students; as a result, subgroup analyses can examine Buddhists, Hindus, and Muslims as separate religious groups with adequate sample sizes. Second, it investigates several outcomes that are generally not associated with religious/worldview identification. If significant effects are observed, then practitioners and researchers should consider placing a greater emphasis on religion/worldview as an understudied—yet potentially influential—dimension of student diversity. Third, the analyses control for several precollege characteristics, including race/ethnicity, gender, socioeconomic status, and high school academic achievement. As a result, one can determine whether religious/worldview identification uniquely predicts student success above and beyond the typical factors that are considered in higher education research and assessment.

Method

Data Source and Participants

Data from the National Longitudinal Survey of Freshmen (NLSF)⁶⁶ were used. The sample included 28 academically selective institutions, which are diverse in terms of student demographics, region, and institutional type. Students of color were oversampled so as to obtain approximately equal numbers of Asian, Black, Hispanic, and White participants. A total of 4,573 first-year students were invited to take part in a face-to-face interview in Fall 1999, and 3,924 students (86%) agreed to

participate. Although this initial data collection occurred in person, virtually all of the questions were closed-ended (i.e., the resulting data were quantitative, not qualitative). The response rates were reasonably similar across racial/ethnic groups, ranging from 83% for White students to 89% for Black students. Four follow-up surveys were conducted via telephone in Spring 2000, 2001, 2002, and 2003. Students who transferred to a different institution or who dropped out of university were followed and retained in the sample to minimize selection bias. A total of 3,098 students participated in the senior-year survey, which constitutes a 79% retest response rate from the initial data collection (ranging from 76% for Black students to 82% for White students). The final analytic sample included students who (a) responded to both the initial and senior surveys and (b) belonged to one of the religious/worldview groups examined in this study ($N = 1,958$). Of these students, 58.8% were Protestant ($N = 1,151$), 9.2% were Jewish ($N = 180$), 6.1% were Buddhist ($N = 120$), 3.9% were Hindu ($N = 77$), 2.9% were Muslim ($N = 57$), and 19.1% reported having no religious affiliation ($N = 373$).

Measures

Dependent variables. College grade point average (GPA) was measured on a 4.0 scale. College graduation within four years and within six years were indicated with dichotomous variables (0 = no, 1 = yes). As noted above, students were retained in the study even if they transferred to a different institution, so these two variables indicate whether a student received a bachelor's degree within the given timeframe from any college or university (not necessarily the one s/he initially attended).

Three dependent variables measured dimensions of college satisfaction. Satisfaction with one's college choice was indicated with three items ($\alpha = .79$), and satisfaction with the academic experience was also measured with a three-item index ($\alpha = .87$). A single item was used to measure satisfaction with friends and acquaintances made while in college. Three other dependent variables indicated students' perceived growth during the college years. Preparation for post-college life was measured with a three-item index ($\alpha = .81$), relating to people from other races was assessed with a two-item

index ($\alpha = .87$), and becoming a better person was gauged with a single item. All satisfaction and perceived growth items used an 11-point scale (0 = totally disagree, to 10 = totally agree).

Independent variables. The key independent variable was students' religious affiliation when entering college. Protestant, Jewish, Muslim, Hindu, and Buddhist were all separate response options within this item. Students who selected "no religious background" or "agnostic" were coded as having no affiliation with an organized religion. Some students also identified with other religious minority groups (e.g., Seventh Day Adventist, Jainism), but sample sizes for those religious minorities were not sufficient to examine these as separate categories.

Unlike previous research that examined these religious minority groups, we included several control variables to determine whether any observed differences are directly attributable to religious identification (as opposed to other entering characteristics). Gender was indicated with a dichotomous variable (0 = male, 1 = female), and parental education was assessed via the average of mother's and father's education (1 = grade school, to 7 = graduate or professional degree). Race/ethnicity was coded into the same variables used for data collection: Black/African American, Hispanic/Latino, and Asian/Asian American, with White/Caucasian as the referent group. High school grade point average (HSGPA) was measured by computing the average of six items that asked for students' typical high school grades (1 = mostly D's, to 4 = mostly A's) in six core subjects (English, history, mathematics, natural sciences, social studies, and foreign languages; Cronbach's $\alpha = .71$). Given the high academic achievement of students within this sample, many students reported receiving mostly A's in all subjects. Therefore, two dummy variables were created for students who reported an A- average (HSGPA at least 3.5 and less than 4.0) and a B+ or lower (HSGPA less than 3.5), with an A average (HSGPA = 4.0) as the referent group.

Limitations

Some limitations should be noted. First, this sample consists of selective U.S. institutions, so it is unclear to what extent these results generalize to less selective schools. Second, the item about religious affiliation specifically asked participants to provide their “religious background.” It is possible that some students may have responded to that question by providing the religious tradition(s) in which they were raised, not what they identify with or currently practice. The percentage of students in this sample reporting no religious affiliation is actually lower than among young American adults.⁶⁷ However, this difference is probably the result of the substantial increase in non-affiliated young adults since the first wave of the NLSF as well as greater religiosity among young people from higher social class backgrounds.⁶⁸ Any inaccuracies that stem from this item phrasing would likely lead to underestimates of the true group differences. Third, while this sample contains a larger sample of students from understudied religions than most national surveys, the sample sizes for Hindus and Muslims were still fairly modest (both below 100). Therefore, conclusions about these groups should be made cautiously. Fourth, students’ perceptions of their own growth often have a weak correlation (at best) with objective, longitudinal measures of growth on the same constructs.⁶⁹ As a result, the self-reported gain items in this study should not be viewed as reflecting actual student learning and development, but instead as providing insight into students’ perception of their own growth, which is an important outcome in its own right.⁷⁰

Results

The means and standard deviations for all dependent variables by religious/worldview identification are displayed in Table 1. According to analyses of variance (ANOVAs), college GPA, four-year graduation, satisfaction with academic experience and friendships, and perceived growth in preparation for life after college and relating to other racial groups all vary as a function of students’ religious/worldview identification ($p < .05$), and the effect for predicting six-year graduation is marginally significant ($p < .10$).⁷¹ Tukey post-hoc tests were conducted to determine which groups differ

significantly from one another. Jewish students ($M = 3.47$) have higher college GPAs than Protestants ($M = 3.15$), Hindus ($M = 3.16$), Muslims ($M = 3.18$), and nones ($M = 3.26$) (in Table 1, these differences are signified by the subscripts next to the mean for Jews in the top row). Buddhist students ($M = 3.40$) also have significantly higher GPAs than Hindus and Protestants, and nones have higher GPAs than Protestants. For four-year graduation, Jews ($M = .85$), Muslims ($M = .81$), and Buddhists ($M = .77$) fare significantly better than Protestants ($M = .65$), and Jews are also higher than nones ($M = .69$). Although the ANOVA for six-year graduation was only marginally significant, Jews ($M = .92$) are more likely to graduate in six years than Protestants ($M = .85$) at a conventional level of significance ($p < .05$). Jews ($M = 7.37$) and Protestants ($M = 7.27$) are significantly more satisfied with their academic experience than are Buddhists ($M = 6.71$). In addition, Protestants fare significantly better than nones on satisfaction with friendships ($M = 8.38$ and 7.96 , respectively), perceived growth in preparation for life after college ($M = 7.44$ and 6.90 , respectively), and perceived growth in relating to other racial groups ($M = 7.25$ and 6.74 , respectively).

To control for potential confounding variables, analyses of covariance (ANCOVAs) were also conducted; religious identification was the between-subjects factor, while gender, race/ethnicity, parental education, and high school GPA served as covariates. Within this more rigorous analysis, college GPA, four-year graduation, satisfaction with friendships, and perceived growth in preparation for life after college all vary significantly across religion/worldview groups, whereas this effect is marginally significant for satisfaction with college choice and perceived growth in relating to other racial groups, and non-significant for satisfaction with the academic experience (see Table 2). Even when adjusting for demographic variables and precollege achievement, Jewish students ($M = 3.39$) receive significantly higher college grades than Hindus ($M = 3.09$), Muslims ($M = 3.10$), Protestants ($M = 3.20$), and nones ($M = 3.23$). Jews ($M = .79$) are also more likely to graduate within four years than Protestants ($M = .68$). Protestants fare significantly better than nones in terms of satisfaction with friendships ($M = 8.39$ and

7.95, respectively) and perceived growth in preparation for life after college ($M = 7.43$ and 6.92 , respectively).

Discussion

This study shows that students' religious/worldview identification predicts several important outcomes, including college satisfaction, perceived growth, academic achievement, and graduation. While most studies of college students' religious/worldview identification—particularly those that include specific groups that are underrepresented in the United States—examine religious and spiritual phenomena,⁷² this study further demonstrates that numerous differences occur for key indicators of college student success. Importantly, several of these findings persist even when controlling for students' race, gender, socioeconomic status, and high school academic achievement. In other words, although religion/worldview is associated with students' entering characteristics,⁷³ religion/worldview still significantly predicts college student outcomes above and beyond those other attributes.

Jewish students and, to a lesser extent, Buddhist students tend to excel academically when compared with Protestants, Nones, and students from some other religious groups. This finding may not be surprising when considering that Jewish students differ, on average, from other college students in several important ways. Relative to students from other backgrounds, Jewish students are more likely to be White, to come from high socioeconomic backgrounds, and to have high precollege achievement,⁷⁴ and Buddhist students are more likely than other students to be Asian.⁷⁵ When controlling for these attributes, many of the advantages for Jewish students persist, whereas the differences for Buddhist students become non-significant. As described earlier, Jews hold a unique place within American society: They are a minority group whose religious practices are marginalized, but they are also viewed favorably (on average) and are the target of “positive” stereotypes.⁷⁶ Moreover, Jewish college students' well-being is often similar to that of their peers, whereas Buddhists and students from other non-Christian religions experience greater psychological distress and spiritual struggle.⁷⁷

Most of the group differences in college satisfaction and perceived growth observed here are driven by the low scores for religious nones. The nones fare more poorly than any group for satisfaction with friendships, perceived growth in preparation for life after college, and perceived growth in relating to other racial groups, and they have the second-lowest scores for satisfaction with their college choice and perceived growth in becoming a better person. These findings are consistent with other research that shows nones have the most pronounced decreases in subjective well-being and spiritual identification, along with increases in religious skepticism, of any religious/worldview group during college.⁷⁸ Putnam and Campbell⁷⁹ argue that many young Americans have become disaffected by the comingling of religion and politics and decide to disengage from organized religion altogether. To the extent that this skepticism or disengagement generalizes to students' other views and experiences, religious nones may feel that they benefitted less from their time in college (whether this is "objectively" true or not) and feel less satisfied with their college experience as a result.

In contrast, the differences between students from the understudied religious groups—Buddhists, Hindus, and Muslims—are actually quite modest. The initial analyses showed that Buddhists receive higher grades than Hindus, but no other significant differences among these three groups are observed. When comparing these groups to the other three, Muslims and Buddhists are more likely to graduate in four years than Protestants, Buddhists report lower satisfaction with the academic experience than Protestants and Jews, and some college GPA differences were also significant (Buddhists outperformed Protestants, while Jews outperformed Muslims and Hindus). However, with the exception of college GPA, all of these group differences become non-significant when controlling for students' precollege characteristics, and some of the means shift notably after this adjustment (e.g., compare the values for satisfaction with the academic experience between Table 1 and Table 2). Thus, it appears that these apparent effects of religious/worldview identification are largely explained by other student characteristics.

Conclusion and Implications

This study expands providing an important contribution to the literature by demonstrating that students' religion/worldview significantly predicts college students' satisfaction, perceived growth, academic achievement, and graduation. Therefore, students' religion/worldview should not simply be of interest to those who are concerned with issues of spirituality, faith, and religion; instead, higher education practitioners, institutional researchers, and scholars should consider this student characteristic alongside the "usual suspects" of college student research and assessment (i.e., race/ethnicity, gender, and socioeconomic status). This recommendation broaches the thorny issue of whether and when colleges should ask students about their religion/worldview. Although including a religious identification question on a college admissions application may be viewed with considerable suspicion, survey organizations have found that, in most contexts, religion is not a sensitive topic and information about religious behaviors is easy to obtain.⁸⁰ In higher education, the Cooperative Institutional Research Program (CIRP) has long asked students about religious identification on its freshman and senior surveys.⁸¹ To understand how religious/worldview identification may predict student outcomes, colleges and universities could use data from CIRP surveys and/or administer their own entering student surveys during first-year orientation.

The current study identified few differences between Muslim, Buddhist, and Hindu students, and these effects were completely eliminated when considering other student attributes. Therefore, especially given the small proportion of students within each of these groups and some of the similar challenges that these students face,⁸² it may be reasonable to combine these students into a single religious minority category when examining general student outcomes. This grouping is consistent with prevailing categorizations of religious identification in the United States;⁸³ moreover, college student research has identified meaningful differences between this aggregated religious minority category and other religious/worldview groups.⁸⁴ However, any in-depth study of the nature of students' spirituality,

faith, religion, and meaning making should examine these religions separately and consider how the specific belief systems and practices of each religion may shape these dynamics; indeed, considerable variation in beliefs and practices exists across religions and worldviews.⁸⁵ Future research should continue to explore the similarities and differences in college experiences and outcomes across religious minority groups.

Table 1. Means and standard deviations for college outcomes by religious/worldview identification.

Outcome	Protestant	Jewish	Muslim	Buddhist	Hindu	None
College grade point average***	3.15 _{BJN} (.47)	3.47 _{HMNP} (.34)	3.18 _J (.48)	3.40 _{HP} (.40)	3.16 _{BJ} (.46)	3.26 _{JP} (.46)
Graduation (4 years)***	.65 _{BJM} (.48)	.85 _{NP} (.36)	.81 _P (.39)	.77 _P (.42)	.75 (.44)	.69 _J (.46)
Graduation (6 years)+	.85 _J (.35)	.92 _P (.27)	.89 (.31)	.89 (.31)	.89 (.31)	.88 (.33)
Satisfaction with academic experience**	7.27 _B (1.64)	7.37 _B (1.44)	6.67 (1.81)	6.71 _{JP} (1.68)	6.97 (1.37)	7.20 (1.71)
Satisfaction with college choice+	7.31 (2.21)	7.63 (1.89)	7.49 (2.06)	6.94 (2.45)	7.12 (2.04)	7.05 (2.30)
Satisfaction with friendships*	8.38 _N (1.91)	8.44 (1.64)	8.60 (1.81)	8.37 (1.85)	8.39 (1.72)	7.96 _P (1.97)
Perceived growth in becoming a better person	8.70 (1.81)	8.80 (1.47)	8.58 (1.54)	8.52 (1.85)	8.85 (1.32)	8.58 (1.84)
Perceived growth in preparation for life after college***	7.44 _N (1.69)	7.30 (1.53)	7.52 (1.68)	7.01 (1.65)	7.25 (1.33)	6.90 _P (1.82)
Perceived growth in relating to other racial groups*	7.25 _N (2.36)	6.90 (2.38)	7.24 (2.56)	7.08 (2.66)	7.24 (2.27)	6.74 _P (2.56)

Note. Standard deviations are listed in parentheses. Subscripts indicate groups that are significantly different from one another ($p < .05$). Asterisks and pluses next to the outcome name indicate whether there is significant variation across all groups, according to analyses of variance.

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

Table 2. Adjusted means and standard errors for college outcomes by religious/worldview identification.

Outcome	Protestant	Jewish	Muslim	Buddhist	Hindu	None
College grade point average***	3.20 _J (.02)	3.39 _{HMNP} (.04)	3.10 _J (.06)	3.28 (.05)	3.09 _J (.06)	3.23 _J (.03)
Graduation (4 years)*	.68 _J (.01)	.79 _P (.03)	.76 (.05)	.68 (.04)	.72 (.05)	.68 (.02)
Graduation (6 years)	.87 (.01)	.89 (.02)	.86 (.04)	.84 (.03)	.87 (.04)	.87 (.02)
Satisfaction with academic experience	7.28 (.06)	7.07 (.14)	6.82 (.25)	6.91 (.18)	7.25 (.24)	7.19 (.10)
Satisfaction with college choice+	7.38 (.08)	7.43 (.19)	7.46 (.33)	6.86 (.24)	7.03 (.32)	7.00 (.13)
Satisfaction with friendships*	8.39 _N (.07)	8.34 (.17)	8.60 (.29)	8.37 (.21)	8.37 (.28)	7.95 _P (.11)
Perceived growth in becoming a better person	8.74 (.06)	8.67 (.16)	8.55 (.27)	8.45 (.20)	8.89 (.26)	8.56 (.10)
Perceived growth in preparation for life after college**	7.43 _N (.06)	7.22 (.15)	7.57 (.26)	7.14 (.19)	7.36 (.25)	6.92 _P (.10)
Perceived growth in relating to other racial groups+	7.25 (.08)	6.93 (.22)	7.21 (.37)	7.11 (.27)	7.09 (.35)	6.76 (.14)

Note. Standard errors are listed in parentheses. Asterisks and pluses next to the outcome name indicate whether there is significant variation across all groups, according to analyses of covariance (controlling for race, gender, parental education, and high school GPA).

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

Notes

¹ For recent books, see A.W. Astin, H.S. Astin and J.A. Lindholm, *Cultivating the Spirit: How College Can Enhance Students' Inner Lives* (San Francisco: Jossey-Bass, 2011); A. Bryant Rockenbach and M. Mayhew, *Spirituality in College Students' Lives: Translating Research Into Practice* (New York: Routledge, 2012); J. Lindholm, M. Millora, L. Schwartz, and H. Spinosa, *A Guidebook of Promising Practices: Facilitating College Students' Spiritual Development* (California, Regents of the University of California, 2011); J. Small, *Understanding College Students' Spiritual Identities: Different Faiths, Varied Worldviews* (New York: Hampton Press, 2011).

² Higher Education Research Institute [HERI]. *The Spiritual Life of College Students*, California: 2005.

³ H. Koenig, M. McCullough, and D. Larson, *Handbook of Religion and Health*, (Oxford: Oxford University Press, 2001).

⁴ N. Bowman and J. Small, "The Experiences and Spiritual Growth of Religiously Privileged and Religiously Marginalized College Students," in *Spirituality in College Students' Lives: Translating Research into Practice*, Eds. Alyssa Bryant Rockenbach and Matthew Mayhew, 19-34. New York: Routledge, 2012a; A. N. Bryant and H. S. Astin, "The Correlates of Spiritual Struggle During the College Years," *Journal of Higher Education*, 79 (1) (2008), 1-28; Mayhew & Bryant Rockenbach, 2013; J. L Small and N.A. Bowman, "Religious Commitment, Skepticism, and Struggle Among College Students: The Impact of Majority/Minority Religious Affiliation and Institutional Type," *Journal for the Scientific Study of Religion*, 50 (2011), 154-174.

⁵ L. Z. Schlosser, "Christian Privilege: Breaking a Sacred Taboo," *Journal of Multicultural Counseling & Development*, 31(1) (2003), 44-51.

⁶ For discussions of Christian privilege in higher education, see C. Clark, M. Brimhall-Vargas, L. Schlosser, and C. Alimo, "It's not just 'Secret Santa' in December: Addressing Educational and Workplace Climate Issues Linked to Christian Privilege," *Multicultural Education*, 10(2), (Winter 2002), 52; E. Fairchild, "Christian Privilege, History, and Trends in U.S. Religion," *New Directions For Student Services*, 125 (2009), 5-11; T. Seifert, "Understanding Christian Privilege: Managing the Tensions of Spiritual Plurality," *About Campus*, 12(2) (2007), 10-17.

⁷ A. Bryant, "Do College Students Who Identify with a Privileged Religion Experience Greater Spiritual Development? Exploring Individual and Institutional Dynamics," *Journal of Higher Education*, 33(1) (2006), 1-25.

⁸ Ibid., 21 emphasis in original.

⁹ N. Bowman and J. Small, "Exploring a Hidden Form of Minority Status: College Students' Religious Affiliation and Well-Being," *Journal of College Student Development*, 53(4) (2012b), 491-509; N. Bowman and C. Toms Smedley, "The Forgotten Minority: Examining Religious Affiliation and University Satisfaction," *Higher Education* 65(4) (2013), 745-760; D. Cole and S. Ahmadi, "Reconsidering Campus Diversity: An Examination of Muslim Students' Experiences," *Journal of Higher Education*, 81 (2010), 121-139; Todd A. Patten and N. Dewaine Rice, "Religious Minorities and Persistence at a Systemic Religiously Affiliated University," *Christian Higher Education*, 8(1) (2009), 42 -53.

¹⁰ Bryant, 2006.

¹¹ HERI, 2005.

¹² L.J. Sax, "America's Jewish Freshmen: Current Characteristics and Recent Trends Among Students Entering College," Higher Education Research Institute, UCLA (2002).

¹³ Bryant, 2006; HERI, 2005.

¹⁴ "U.S. Religious Landscape Survey," accessed February 20, 2013, <http://religions.pewforum.org/reports>.

¹⁵ "Almanac of Higher Education 2012," accessed February 26, 2013, <http://chronicle.com/section/Almanac-of-Higher-Education/615/>.

¹⁶ Bryant, 2006.

¹⁷ Ibid.

¹⁸ Astin, Astin, and Lindholm, 2011b; HERI, 2005.

¹⁹ L. Peek, "Becoming Muslim: The Development of a Religious Identity," *Sociology Of Religion* 66(3) (2005), 215-242; J. Small, 2011.

²⁰ D. Cole and S. Ahmadi, "Perspectives and Experiences of Muslim Women Who Veil on College Campuses," *Journal of College Student Development* 44(1) (2003), 47-66; F. Seggie and G. Sanford, "Perceptions of Female Muslim Students Who Veil: Campus Religious Climate," *Race Ethnicity and Education* 13(1) (March 2010), 59-82.

-
- ²¹ D. Cole and S. Ahmadi, 2010.
- ²² N. Nasir and A. Jasiyah, "Creating Identity-Safe Spaces on College Campuses for Muslim Students," *Change* 38(2) (2006), 22-27; J. Small, 2011.
- ²³ Bryant, 2006.
- ²⁴ "U.S. Religious Landscape Survey," accessed February 26, 2013, <http://religions.pewforum.org/reports>.
- ²⁵ R. H. Seager, *Buddhism in America*. (New York: Columbia University Press, 1999); P. Kurien, "Being Young, Brown, and Hindu: The Identity Struggles of Second-Generation Indian Americans," *Journal of Contemporary Ethnography* 34(4) (2005), 434-469; B. G. Smith, "Buddhism in America," *Contemporary Buddhism* 7(2) (2006), 149-64.
- ²⁶ Bryant, 2006.
- ²⁷ Astin, Astin, and Lindholm, 2011b.
- ²⁸ Bryant, 2006; HERI, 2005.
- ²⁹ Bryant, 2006.
- ³⁰ HERI, 2005.
- ³¹ Bryant, 2006.
- ³² Elfman 2006.
- ³³ L. Elfman, "Encountering Hinduism On Campus," *Hinduism Today* 28(4) (2006), 32-33.
- ³⁴ Bryant, 2006.
- ³⁵ "U.S. Religious Landscape Survey."
- ³⁶ H. S. Wechsler, *The Qualified Student* (New York: Wiley, 1977).
- ³⁷ Bryant, 2006; HERI, 2005.
- ³⁸ "U.S. Religious Landscape Survey."
- ³⁹ C. Kadushin and E. Tighe, "How Hard is it to be a Jew on College Campuses?," *Contemporary Jewry* 28(1) (2008), 1-20.
- ⁴⁰ Sax, 2002.
- ⁴¹ R. D. Putnam and D. E. Campbell, *American Grace: How Religion Divides and Unites Us* (New York: Simon & Schuster, 2010).
- ⁴² Schlosser, 2003; M. J. Singer, "A Hidden Minority Amidst White Privilege," *Multicultural Perspectives* 10 (1) (2008), 47-51.
- ⁴³ Kadushin and Tighe, 2008.
- ⁴⁴ J. Small, 2011.
- ⁴⁵ Bryant, 2006; HERI, 2005.
- ⁴⁶ Small and Bowman, 2011.
- ⁴⁷ J. Small, 2011.
- ⁴⁸ Kadushin and Tighe, 2008.
- ⁴⁹ J. Small, 2011.
- ⁵⁰ Sax, 2002.
- ⁵¹ Putnam and Campbell, 2010.
- ⁵² C. Smith, with P. Snell, *Souls in Transition: The Religious and Spiritual Lives of Emerging Adults* (New York: Oxford University Press, 2009).
- ⁵³ C. Lim, C. A. MacGregor, and R. D. Putnam, "Secular and Liminal: Discovering Heterogeneity Among Religious Nones," *Journal for the Scientific Study of Religion* 49 (2010), 596-618.
- ⁵⁴ Putnam and Campbell, 2010.
- ⁵⁵ "Nones on the Rise: One in Five Adults Have No Religious Affiliation," accessed February 1, 2013, <http://religions.pewforum.org/reports>.
- ⁵⁶ HERI, 2005.
- ⁵⁷ N. Bowman and J. Small, "Do College Students Who Identify with a Privileged Religion Experience Greater Spiritual Development? Exploring Individual and Institutional Dynamics," *Research In Higher Education* 51(7) (2010), 595-614; Small and Bowman, 2011.
- ⁵⁸ A. N. Bryant and H. S. Astin, 2008; Mayhew and Bryant Rockenbach, 2013.
- ⁵⁹ N. Bowman and C. Toms Smedley, 2013; Bowman and Small, 2012b; HERI, 2005.

⁶⁰ K. M. Goodman and J.A. Mueller, "Invisible, Marginalized, and Stigmatized: Understanding and Addressing the Needs of Atheist Students," *New Directions for Student Services* 125 (2009), 55-63; R. J. Nash, "Inviting Atheists to the Table: A Modest Proposal for Higher Education," *Religion & Education*, 30(1) (2003), 1-23; J. Small, 2011.

⁶¹ For reviews, see Koenig, McCullough, and Larson, 2001; For reviews, see D. Mayrl and F. Oeur, "Religion and Higher Education: Current Knowledge and Directions for Future Research," *Journal for the Scientific Study of Religion* 48 (2) (2009), 260-275; For reviews, see Small and Bowman, 2011.

⁶² Bowman and Small, 2012b.

⁶³ For detailed discussions of this distinction, see C.M. Del Rio and L. J. White, "Separating Spirituality From Religiosity: A Hylomorphic Attitudinal Perspective," *Psychology of Religion and Spirituality* 4(2) (2012), 123-142; For detailed discussions of this distinction, see M.S. Zabriskie, "College Student Definitions of Religiosity and Spirituality," PhD Dissertation, University of Michigan, 2005.

⁶⁴ HERI, 2005.

⁶⁵ D. Cole and S. Ahmadi, 2010.

⁶⁶ For more information about this study, see "NLSF Brochure," accessed February 26, 2013 from the National Longitudinal Survey of Freshmen, 2010, http://nlsf.princeton.edu/pdfs/NLSF_Brochure.pdf.

⁶⁷ Putnam and Campbell, 2010; Smith and Snell, 2009.

⁶⁸ Putnam and Campbell, 2010.

⁶⁹ N.A. Bowman, "Can 1st-Year College Students Accurately Report their Learning and Development?," *American Educational Research Journal*, 47(4) (2010), 466-496; N.A. Bowman, "Validity of College Student Self-Reported Gains at Diverse Institutions," *Educational Researcher*, 40(1), (2011), 22-24.

⁷⁰ R. M. Gonyea and G. D. Kuh, "Independent Colleges and Student Engagement: Do Religious Affiliation and Institutional Type Matter?" Center for Postsecondary Research, Indiana University (2006).

⁷¹ Analyses of variance and covariance assume that the dependent variable is continuous, so it is less than ideal to use these to predict four- and six-year graduation. To confirm the ANOVA and ANCOVA results using a method specifically designed for dichotomous outcomes, logistic regression analyses were also performed. Indeed, those results indicated that, if anything, the ANOVAs and ANCOVAs underestimated the extent of group differences in predicting student graduation. However, the limitation with this approach is that a single referent group must be chosen (e.g., Protestant students) to which each of the other five religion/worldview groups are individually compared, whereas ANOVAs and ANCOVAs conduct a comparison that tests for the presence of differences between each pair of the six groups. Therefore, the more conservative results for the ANOVAs and ANCOVAs are presented in this paper.

⁷² M. S. Brown, "The Nature of Spiritual Questioning Among Select Undergraduates at a Midwestern University: Constructions, Conditions, and Consequences." PhD Dissertation, Bowling Green State University, 2012; M. J. Mayhew, "Exploring the Essence of Spirituality: A Phenomenological Study of Eight Students with Eight Different Worldviews," *NASPA Journal* 41(3) (2004), 647-674; J. Small, 2011.

⁷³ Bryant, 2006; D. Cole and S. Ahmadi, 2010; HERI, 2005; Sax, 2002.

⁷⁴ Bryant, 2006; D. Cole and S. Ahmadi, 2010; Sax, 2002.

⁷⁵ Bryant, 2006.

⁷⁶ Putnam and Campbell, 2010; Small, 2011.

⁷⁷ Bryant and Astin, 2008; Sax, 2002.

⁷⁸ Bowman and Small, 2010; Bowman and Small, 2012a; Bowman and Small, 2012b; Small and Bowman, 2011.

⁷⁹ Putnam and Campbell, 2010.

⁸⁰ N. M. Bradburn, S. Sudman, and B. Wansink, *Asking Questions: the Definitive Guide to Questionnaire Design: For Market Research, Political Polls, and Social and Health Questionnaires* (San Francisco: Jossey-Bass, 2004).

⁸¹ Higher Education Research Institute [HERI]. *The Spiritual Life of College Students*, California: 2013.

⁸² Putnam and Campbell, 2010; Schlosser, 2003; J. Small, 2011.

⁸³ B. Steensland, J.Z. Park, M.D. Regnerus, L.D. Robinson, W. Wilcox, and R.D. Woodberry, "The Measure of American Religion: Toward Improving the State of the Art," *Social Forces* (University of North Carolina Press), 79(1) (2000), 291-324.

⁸⁴ N. Bowman and C. Toms Smedley, 2013; Bryant and Astin, 2008; Small and Bowman, 2011.

⁸⁵ Brown, 2012; Bryant, 2006; HERI, 2005; Mayhew, 2004.