



ACSI Working Paper No. 2023-03

## Spiritual Formation in College and University: Do Students in Religious Higher Education Institutions Feel More Supported in Their Faith?

Matthew H. Lee

Kennesaw State University

Rian R. Djita

University of Arkansas

Eric W. Price

ACSI

Enrollments in religious higher education institutions have increased in recent years. Leaders of these institutions often cite students' desire to attend a college or university supportive of their faith as a reason for enrolling. However, it is unclear whether religious colleges and universities are more supportive of faith than secular institutions. We analyze a sample of private Christian school alumni and compare perceived faith support of students who attended a religious higher education institution with similar students who attended a secular institution. We find students of religious higher education institutions reported significantly higher levels of feeling supported (roughly 1.2 standard deviations) or strengthened in their faith (roughly 0.4 standard deviations) and significantly lower levels of feeling attacked for their faith (roughly 0.8 standard deviations). Differences are particularly pronounced for students who report having been a Christian for many years and for students who attend religious services weekly or more frequently.

**Spiritual Formation in College and University:  
Do Students in Religious Higher Education Institutions Feel More Supported in Their  
Faith?**

Matthew H. Lee\*  
Kennesaw State University

Rian R. Djita  
University of Arkansas

Eric W. Price  
ACSI

**Author Note**

\*Corresponding author.

Email: [hmatthewlee@gmail.com](mailto:hmatthewlee@gmail.com)

Address: MD 0403

560 Parliament Garden Way NW

Kennesaw, GA 30144

**Abstract**

Enrollments in religious higher education institutions have increased in recent years. Leaders of these institutions often cite students' desire to attend a college or university supportive of their faith as a reason for enrolling. However, it is unclear whether religious colleges and universities are more supportive of faith than secular institutions. We analyze a sample of private Christian school alumni and compare perceived faith support of students who attended a religious higher education institution with similar students who attended a secular institution. We find students of religious higher education institutions reported significantly higher levels of feeling supported (roughly 1.2 standard deviations) or strengthened in their faith (roughly 0.4 standard deviations) and significantly lower levels of feeling attacked for their faith (roughly 0.8 standard deviations). Differences are particularly pronounced for students who report having been a Christian for many years and for students who attend religious services weekly or more frequently.

*Keywords:* spiritual formation, higher education, Christian education

## **Spiritual Formation in College and University:**

### **Do Students in Religious Higher Education Institutions Feel More Supported in Their Faith?**

Amidst declining enrollment trends in higher education (Meyer, 2023), many Evangelical colleges and universities reported record enrollment in the fall of 2023, with enrollments increasing by as much as 20 percent and as many as 374 students in some schools (Sillman, 2023), following a decade of decline (Glanzer, 2023a, 2023b). Many school leaders attributed this growth to students' desire to attend a higher education institution aligned with their faith (Prieur, 2023; Roberts, 2023; Sillman, 2023).

These enrollment decisions are reasonable considering that prior research documents several ways in which religious higher education institutions may support students' spiritual formation, including institutional culture (Otto & Harrington, 2016; Woodrow, 2006), faculty, staff, and student interaction (Pascarella & Terenzini, 1991), campus ministries and peer effects (Johnson & Lee, 2023a, 2023b), incorporation of spiritual disciplines (Call, 2011; DeYoung, 2011; Rhea, 2011; Walton & Walters, 2011), and intentional pedagogical design (Deckard et al., 2002, 2002; Deckard & Sobko, 1998; Sanders, 2011; Smith, 2011). However, Christian higher education institutions' commitment to a distinctively Christian mission has been questioned recently (Alexander & Lin, 2023; Yenor, 2023). One study found that students attending Catholic or mainline Protestant colleges or universities decline in religious participation more quickly than students attending other institutions (Hill, 2009).

Enrollment decisions may also be driven by perceptions of secular higher education institutions if students anticipate their faith may be undermined. According to sociologist Peter Berger (1967), the pluralistic culture of secular campuses may undermine students' faith identity.

While secular universities may be interested in spirituality, this interest may not be consistent with the spirituality of Christian students (Astin, 2004). More recent studies also found Christian students face a number of challenges in secular universities, including feelings of being misunderstood and marginalized, the inability to find sense of belonging, and the constant pressure of conforming to secular norms (Barker, 2013; Burchett & Glanzer, 2020). These findings may be related to the fact that Christians are underrepresented among university faculty relative to the American public (Ecklund & Scheitle, 2007) or related to higher levels of perceived bias of professors against Christian students (Barnes et al., 2020). The university may weaken faith commitments in other ways (Hunter, 1983). One longitudinal study finds that college graduates are more secular than non-graduates (Funk & Willits, 1987). Other studies find evidence of a relationship between political conservatism and religiosity in explaining changes to faith commitments during college (Brown et al., 2023; Hoge et al., 1993).

However, prior research on spiritual formation in Christian higher education is somewhat limited in scope and methodology, making it difficult to evaluate Christian higher education's role in developing students' spiritual formation. Some work on the topic is theoretical or theological in nature (Astin, 2004; Esqueda, 2014) or qualitative in methodology and lacking a counterfactual (Barker, 2013; Burchett & Glanzer, 2020; Hoge et al., 1993). The relationship between students' faith identity and college attendance remains unclear, whether positive (Cornwall, 1989; Horwitz, 2022; Muller & Ellison, 2001), negative (Hunter, 1983), or better explained by other factors (Simoneaux, 2015; Arnett & Jensen, 2002; Dillon, 1996) such as parents (Fawcett et al., 2021; Peterson, 2006; White & Matawie, 2004; Marks, 2004; Lee et al., 1997; Iannaccone, 1990; Willits & Crider, 1989), peers (Gunnoe & Moore, 2002; King et al.,

2002), and churches (Schultz, 2012; Cort, 2008; Hembree, 2007; Haynes, 2006; Gantt, 2004; Krispin, 2004).

We seek to understand more about students' faith experience in postsecondary institutions by asking the following research question: Do students who attend religious colleges or universities feel more supported in their faith than students who attend secular colleges and universities? Our study makes several meaningful contributions to empirical research on Christian higher education. First, our study design allows us to explore mechanisms that may explain any relationship between attending a religious higher education institution and student outcomes. Specifically, we consider whether students attending religious institutions report different levels of feeling attacked for their faith, supported in their faith, strengthened in their faith, or prepared for such challenges than their peers who attend secular institutions. Second, our study uses an analytic sample of students who attended a private Christian school for primary or secondary education, allowing us to compare religious higher education students to a comparison group that is similar on most observable characteristics. While attendance at a religious or secular higher education institution is endogenous, we control for a rich set of covariates to help mitigate the threat of selection bias. Our analytic sample and empirical strategy allow us to compare perceived faith supports of alumni of private Christian schools who attended a religious higher education institution with a similar comparison group of alumni who attended a secular institution.

Having summarized the literature, the remainder of our paper is organized as follows. In the next section, we state our theoretical expectations. We then describe our methodology, including data, analytic sample, and empirical strategy. Finally, we present our results with a

discussion of limitations and implications before concluding with some directions for further research.

### **Theoretical Expectations**

We theorize that compared to students who attend secular colleges/universities, students who attend Christian colleges/universities are more likely to have positive faith experiences while enrolled. Extant research supports the basis for this hypothesis. For example, studies have documented that Christian postsecondary institutions support engaged learning and relationship building while incorporating student faith as a lens for both reframing events, and promoting students' missional purpose and calling (Derrico et al., 2015).

Likewise, Christian students report adverse postsecondary faith experiences when their instructors have negative attitudes toward religion, and when instructors are unyielding in their instructional practices when teaching on biblically contrarian topics, such as evolution (Barnes et al., 2020). Research has shown that Christian faculty members who receive postsecondary training at Christian institutions are better able to integrate their Christian faith within their course objectives (Alleman, 2015).

Finally, research has shown within the secular university setting, methods of study, relationships, and staff advisors both challenge and support Christian students toward authenticity, commitment, and transformation of faith. However, Christian students report being singled out both appropriately and inappropriately within classes, the peer university culture, and relationally (Wells, 2003). Based on these research findings, we hypothesize that Christian students who attend Christian postsecondary institutions would be less likely to agree that their faith felt attacked while enrolled in school than Christian students who attend secular colleges/universities. We hypothesize that Christian students who attend Christian postsecondary

institutions would be more likely to agree that their faith felt supported, more likely to agree that their faith felt challenged in an encouraging manner, and more likely to agree that their Christian school prepared them for outside, secular hostilities when compared with students who attend secular colleges/universities.

## **Methodology**

### **Data**

Our data come from a pilot study of the Flourishing Faith Index (FFI) fielded by the Association of Christian Schools International (ACSI) beginning fall of 2022 (Lee et al., 2023). The pilot study included 509 alumni who had graduated from 25 different ACSI member schools that are broadly representative of ACSI membership.

### **Analytic Sample**

We focus on an analytic sample of 324 alumni who indicated whether they attended a religious or secular higher education institution. In Table 1, we present demographic descriptive statistics of our analytic sample. Our alumni are predominantly White and about two-fifths of the total sample are male. Two-thirds of our sample work full-time. On average, alumni in our sample were enrolled in Christian schools for about nine years, ranging from a minimum of one year to a maximum of 14 years. Nearly all alumni reported having attended 12th grade as the highest grade while enrolled in their Christian school (98.8 percent), and nearly all alumni in our sample (97.5 percent) graduated from their respective Christian school. Regarding educational attainment, roughly two-thirds of alumni in our sample reported having a bachelor's degree as their highest degree, while 34% reported a graduate degree such as a master's degree (27 percent) or a doctorate (7 percent). Regarding postsecondary institutional characteristics, we note



that more than half our alumni graduated from public universities/colleges (52 percent), followed by private religious (40 percent), and private nonsectarian institutions (8 percent).

Moreover, we also present descriptive data on respondents' satisfaction with their Christian school. Alumni respondents indicated their satisfaction on a five-point Likert scale (ranging from 1 = "Very dissatisfied" to 5 = "Very satisfied") with respect to four school characteristics, as well as the likelihood they would recommend the school to a friend or family member (ranging from 1 = "Very unlikely" to 5 = "Very likely"; see Table 1). We observe that our alumni generally agreed that they were satisfied with their education in Christian schools. On average, alumni in our sample were "likely" to recommend their school to a friend or family member (mean = 3.51) and were "satisfied" with the school overall (3.75), the school's teachers (3.95), the education provided by their Christian school (4.02), and the faith development they received (3.63). We estimated an overall satisfaction measure as each respondent's average response to the five satisfaction questions.

[Table 1 about here]

The FFI pilot study included questions on respondents' faith (see Table 2). Four-fifths of our sample self-identified as having been a Christian for many years, while the remaining respondents identified as "not a Christian" (10 percent), uncertain about their faith (8 percent), or recently converted to the Christian faith. Three-fifths of the sample reported attending religious services weekly or more frequently. The survey also included a 25-item propositional survey, which asked respondents how strongly they agreed with statements about the Christian faith on a five-point Likert scale (1 "Strongly disagree" to 5 "Strongly agree"). Items include statements such as "My sins are forgiven because Jesus died for me," "All people are created in the image of God," and "The Bible is the inspired Word of God" (Lee et al., 2023).

Importantly, the pilot study included four items on respondents' undergraduate faith experience. Respondents indicated on a five-point Likert scale (1 = "Strongly disagree" to 5 = "Strongly agree") how strongly they agreed with the following four statements:

1. During my time in college, I felt like my Christian worldview was under attack from my professors or fellow students.
2. During my time in college, I felt like my Christian worldview was supported and nurtured by my professors or fellow students.
3. My college professors challenged my biblical worldview in college, and it served to strengthen who I am as a Christian.
4. My Christian school prepared me well for a world that is not always friendly to Christianity.

On average, respondents disagreed that their faith came under attack (2.33) and were neutral with respect to their faith being supported (3.10) and challenged (3.17) as undergraduate students. Respondents were also neutral with respect to how well their Christian school prepared them to handle potential challenges to their faith (3.35).

[Table 2 about here]

While all individuals in our analytic sample attended a private Christian school for primary or secondary education, students chose of their own volition to attend a religious or secular undergraduate institution. We took a conventional approach of comparing the two independent groups by running a *t*-test for independence means by postsecondary institutions, specifically between religious and secular colleges/universities, to test for statistically significant differences between the groups. The results of these baseline tests are found in Table 3.

[Table 3 here]

We observe that most of the demographic characteristics between religious and secular undergraduate students are generally balanced. We do not detect statistically significant differences between groups by K-12 Christian school enrollment, graduation, educational attainment, sex, or ethnicity. On average, alumni who attended secular undergraduate institutions are more likely to be employed full-time than alumni who attended religious undergraduate institutions (11 points,  $p < 0.05$ ). Alumni who attended religious colleges or universities are more likely to self-identify as a Christian for many years (9 points,  $p < 0.05$ ). Finally, alumni who attended religious undergraduate institutions consistently report higher levels of satisfaction with their K-12 Christian school than alumni who attended secular undergraduate institutions, ranging from 0.39 to 0.54 points ( $p < 0.01$ ).

### **Empirical Strategy**

To estimate the relationship between attending a religious undergraduate institution and respondents' faith experience, we use the following empirical model:

$$z\_y_i = \beta_0 + \beta_1 \text{ReligiousUndergrad}_i + \mathbf{X}'\Phi_i + \epsilon_i \quad (1)$$

We regress a standardized measure of respondents' undergraduate faith experience  $z\_y_i$  on  $\text{ReligiousUndergrad}_i$ , our primary explanatory variable that takes the value of 1 if the individual  $i$  attended a religious college or university and 0 otherwise. For each statement, we ran two separate specifications, one without demographic controls and the other with a vector of demographic controls  $\mathbf{X}'$ , which includes covariates such as alumni's K-12 Christian school experience, educational attainment, satisfaction with their primary and secondary Christian education, and other demographic characteristics such as ethnicity, sex, employment status, and faith identity. As our outcomes of interest are dichotomous, we calculate heteroskedasticity-robust standard errors.

In our supplemental analyses, we examine whether the relationship between undergraduate sector and respondent's faith experience using the following model:

$$y_i = \beta_0 + \beta_1 \text{ReligiousUndergrad}_i + \beta_2 \text{ReligiousUndergrad}_i * D_i + \mathbf{X}'\Phi_i + \epsilon_i \quad (2)$$

In this model, we introduce an interaction term between *ReligiousUndergrad<sub>i</sub>* and some respondent demographic characteristic *D<sub>i</sub>*, including whether the respondent faith identity (1 if respondent reported being a Christian for many years and 0 otherwise), religious service attendance (1 if weekly or more frequently and 0 otherwise), years enrolled in a private K-12 Christian school, and gender (0 = female, 1 = male). The coefficient  $\beta_2$  represents a formal statistical test for whether the relationship between attending a religious undergraduate institution and respondent's faith experience differed by demographic characteristic *D<sub>i</sub>*.

### Results

We present our main results in Table 4. We consistently estimate a statistically significant relationship between undergraduate sector and undergraduate faith experience that is robust to the inclusion of covariates with one exception. First, alumni who attended religious colleges or universities are less likely to report feeling attacked in their Christian worldview by between 0.74 and 0.90 standard deviations ( $p < 0.001$ ). Second, alumni who attended a religious undergraduate institution are more likely to report feeling supported and nurtured in their faith than their counterparts by between 1.23 and 1.26 standard deviations ( $p < 0.001$ ). Third, alumni who attended a religious undergraduate institution are more likely to report feeling challenged on their biblical worldview in a way that strengthened their faith, which also strengthened their Christian faith by between 0.39 and 0.51 standard deviations ( $p < 0.001$ ). Finally, alumni who attended religious colleges or universities were more likely to report that their private Christian school prepared them for a world that is not always friendly to Christianity (0.41,  $p < 0.001$ ).

However, this finding was not robust to the inclusion of demographic characteristics (column 8). Lastly, it is also noteworthy to point out that the majority of the demographic controls in the model turned out to be insignificant, indicating that the significant results that we observe are not driven by these demographic controls but mainly by the different types of postsecondary institutions that the students attended.

[Table 4 about here]

We then explored the mediation factors of attending religious college or university among our sample. This analysis helps us identify the factors mediating the relationship between religious college or university attendance and students' faith experience. Understanding this factor might help us identify potential targets for intervention among Christian postsecondary institutions in improving the faith experience of their students. We estimated empirical models for 4 outcomes ("Attacked", "Supported", "Challenged", "Prepared") using 4 mediators ("Christian", "Weekly", "Years", "Male"), a total of 16 regressions.

The results of our mediator analysis are presented in Figure 1. Each cell represents the estimates from a separate regression, with  $\beta_1$  capturing the association between each outcome and attending a religious college or university and  $\beta_2$  capturing the relationship between each outcome and the interaction. Outcomes are identified along the  $y$ -axis: whether respondents felt their Christian worldview was under attack in row 1 ("Attacked"); supported and nurtured by professors and peers in row 2 ("Supported"); challenged in a way that served to strengthen their faith in row 3 ("Challenged"); and prepared by their private Christian school in row 4 ("Prepared"). Mediators are identified along the  $x$ -axis: whether the respondent identified as a Christian for many years in column 1 ("Christian"); attends religious services weekly or more

frequently in column 2 (“Weekly”); the number of years attending a private Christian school in column 3 (“Years”); and whether the respondent identified as a male in column 4 (“Male”).

The two mediators for which we estimated a statistically significant (95% confidence) relationship between the interaction and outcome consistently with or without control covariates are highlighted in gray. The association between attending a religious higher education institution and feeling supported by professors and peers was significantly higher for Christian alumni (between 0.89 and 1.09 standard deviations,  $p < 0.001$ ). Similarly, the association between attending a religious higher education institution and feeling supported by professors and peers was significantly higher for alumni who attend religious services weekly or more frequently (between 0.79 and 0.86 standard deviations,  $p < 0.001$ ).

[Figure 1 about here]

### **Limitations**

Our study has two limitations. First, while we compare graduates of private Christian schools who attended a religious higher education institution with other alumni of the same private Christian schools who attended a secular higher education institution, our study is not experimental in design. However, in our analyses with demographic controls, we demonstrate that many control covariates are not statistically significant and provide evidence of robustness to the inclusion or exclusion of covariates. Second, our study is limited to the self-reports of survey respondents. We consider perceptions of hostility or support to their personal faith.

### **Discussion and Implications**

These limitations aside, there are several findings worth discussing from our results. First, though there is a growing literature that shows a persistent spiritual struggle and lower religious practice participation among youth in Christian colleges and universities (Hill, 2009;

Hunter, 1983), our findings provide evidence that students who attended Christian higher education institutions feel more supported in their faith compared to their counterparts who attended more secular college and universities. This finding aligns with prior literature that showed Christian colleges or universities tend to provide a supportive environment for their students' faith formation (Call, 2011; Esqueda, 2014; Pascarella & Terenzini, 1991; Rhea, 2011; Walton & Walters, 2011; Woodrow, 2006). Studies have documented distinctive ways in which Christian colleges or universities cultivate their students' faith formation including its institutional culture and campus ministries (Johnson & Lee, 2023a, 2023b), interactions among faculties, staffs and students (Pascarella & Terenzini, 1991), spiritual disciplines and practices (Call, 2011; DeYoung, 2011; Rhea, 2011; Walton & Walters, 2011) or training of the minds through faith-informed pedagogies (Deckard et al., 2002; Henderson et al., 2003). Second, not only did they feel supported in their spiritual formation, but graduates of Christian colleges and universities expressed higher rates of feeling their biblical worldview was challenged by professors. This finding is consistent with prior research, which finds that spiritual struggle can be a formative experience for students and their faith (Fowler, 1995; Hill, 2009). Religious colleges and universities, even if the institution is aligned with a student's faith, may want to consider how to provide opportunities for these formative experiences.

Third, our study provides evidence of the mechanism of the relationship between attending Christian colleges and universities and students feeling supported in their faith. Through our mediation analyses, we found that the potential benefit of attending a religious higher education institution may be greater for students who are Christians and attend religious services weekly or more frequently. One possible explanation for this mediating relationship relates to the concept of spiritual struggle among college students. Higher education is a

complicated journey with significant transitions in students' lives, being away from home and lacking family support that used to be readily available while starting to form relationships with other people with different backgrounds, values, and religious beliefs. This transition might contribute to some of the common spiritual struggles observed among college students (Argue, 2015; Bryant & Astin, 2008). This transition either positively (strengthening one's faith) or negatively contributes to students' faith formation, ranging from psychological issues such as depression, anxiety, suicidal thoughts, or questioning faith in God (Bryant & Astin, 2008). Therefore, students who have been Christian for years and attend religious service regularly are more likely to be more committed to their faith. This might also mean that they are more likely to seek out a support system and appreciate the type of support that is available for their spiritual formation journey in Christian institutions.

There are several important implications for Christian higher education. First, Christian colleges and universities should maintain their missional efforts in supporting students' spiritual formation, including offering spiritual disciplines and practices, delivering faith-informed pedagogical practices, and providing students with a safe environment where they can explore, grow, and think critically about their Biblical worldview as they connect with students who came from various backgrounds. Second, since spiritual struggle is common among college students, Christian higher education institutions should be more intentional in developing students' spiritual formation. Some literature, mainly from the K-12 settings, has called for some intentional sabbatical practices among teachers and students not only to mitigate spiritual and physical burnout but also to cultivate spiritual formation (Badley, 2020; Cheng et al., 2023; Griffis, 2023). This is something that Christian colleges and universities can do to create a culture and policy that highlights the importance of rest among their students, faculty, and staff.



### **Conclusion**

We consider whether students who attend a religious higher education institution feel more supported in their faith than students who attend a secular institution. We analyze a sample of private Christian school alumni who attend a religious higher education institution with a similar comparison group of alumni who instead attended a secular institution. We find that students who attended a religious higher education institution report feeling more supported in their faith and challenged in ways that strengthened their faith. In contrast, they report feeling less attacked for their faith by professors and peers.

Future studies around this topic should explore several avenues of research. First, future studies could build on our current understanding of college students' spiritual formation by investigating other related outcomes, such as Christian graduates' spiritual growth and maturity post-college or spiritual burnout during college, and strategies to mitigate them. These topics will help Christian colleges and universities better equip their students spiritually both in college and after college. Second, future studies can also examine other long-term outcomes of their graduates, such as their civic engagement, religious participation, and vocational development. These lines of research will inform our understanding of how students' spiritual formation cultivated in Christian institutions may have a broader impact on their personal lives and their ministries to other people and wider society. The third line of research worth exploring is how Christian colleges or universities prepare Christian educators, who are the frontliners in shaping students' spiritual formation in K-12 settings. This line of research will not only bridge the gap in the literature about teacher preparation from Christian postsecondary institutions and their role in shaping students' spiritual formation, but it will also provide essential implications on the teacher-hiring process in Christian school contexts.

### References

- Alexander, D., & Lin, I. (2023, September 6). The purpose of Christian higher education. *American Reformer*. <https://americanreformer.org/2023/09/the-purpose-of-christian-higher-education/>
- Alleman, N. F. (2015). The Christian College Advantage? The Impact of Christian Versus Secular Training Among Faculty at Christian Colleges and Universities. *Journal of Research on Christian Education*, 24(3), 252–270.  
<https://doi.org/10.1080/10656219.2015.1100101>
- Argue, S. C. (2015). *Supporting undergraduate spirituality: College-related factors Evangelical Christian students perceive as affecting their working through spiritual struggle while attending a public university* [Ph.D. dissertation]. Michigan State University.  
<https://www.proquest.com/openview/60977f04fa075cd04cfb9a3bc1beb663/1?pq-origsite=gscholar&cbl=18750>
- Arnett, J. J., & Jensen, L. A. (2002). A Congregation of One: Individualized Religious Beliefs among Emerging Adults. *Journal of Adolescent Research*, 17(5), 451–467.  
<https://doi.org/10.1177/0743558402175002>
- Astin, A. W. (2004). Why spirituality deserves a central place in liberal education. *Liberal Education*, 90(2), 34–41.
- Barker, S. L. (2013). A qualitative examination of the experiences of Christian students in social work educational programs. *Social Work & Christianity*, 40(1), 3–22.
- Barnes, M. E., Truong, J. M., Grunspan, D. Z., & Brownell, S. E. (2020). Are scientists biased against Christians? Exploring real and perceived bias against Christians in academic biology. *PLOS ONE*, 15(1), e0226826. <https://doi.org/10.1371/journal.pone.0226826>

- Berger, P. L. (1967). *The sacred canopy: Elements of a sociological theory of religion*. Anchor Books.
- Brown, B. M., Dougherty, K. D., Uecker, J. E., Schnitker, S. A., & Glanzer, P. L. (2023). Changes in Politics and Religiosity Among Students at a Protestant University. *Journal for the Scientific Study of Religion*, jssr.12891. <https://doi.org/10.1111/jssr.12891>
- Bryant, A. N., & Astin, H. S. (2008). The Correlates of Spiritual Struggle during the College Years. *The Journal of Higher Education*, 79(1), 1–27. <https://doi.org/10.1080/00221546.2008.11772084>
- Burchett, M., & Glanzer, P. (2020). How Student Affairs Education Limits Spiritual, Religious, and Secular Identity Exploration: A Qualitative Study of Graduate Students' Educational Experiences. *Journal of College and Character*, 21(4), 281–300. <https://doi.org/10.1080/2194587X.2020.1822877>
- Call, C. (2011). The rough trail to authentic pedagogy: Incorporating hospitality, fellowship, and testimony into the classroom. In D. Smith & J. K. A. Smith (Eds.), *Teaching and Christian practices: Reshaping faith and learning* (pp. 61–79). W.B. Eerdmans Pub. Co.
- Cornwall, M. (1989). The Determinants of Religious Behavior: A Theoretical Model and Empirical Test. *Social Forces*, 68(2), 572. <https://doi.org/10.2307/2579261>
- Cort, A. K. (2008). *The relationship of adolescent perceptions of peer acceptance and motivation to participate in the local congregation* [Ed.D., Southern Baptist Theological Seminary]. <https://repository.sbts.edu/handle/10392/492>
- Deckard, S., Henderson, T., & Grant, D. (2002). The importance of the teacher's worldview in relationship to student understanding of the creation and evolution controversy. *Christian*

- Education Journal*, 6(2). <https://www.proquest.com/scholarly-journals/importance-teachers-worldview-relationship/docview/205458659/se-2?accountid=8361>
- Deckard, S., & Sobko, G. M. (1998). Toward the development of an instrument for measuring a Christian creationist worldview. *Proceedings of the International Conference on Creationism*, 4. [https://digitalcommons.cedarville.edu/icc\\_proceedings/vol4/iss1/16](https://digitalcommons.cedarville.edu/icc_proceedings/vol4/iss1/16)
- Derrico, C. M., Tharp, J. L., & Schreiner, L. A. (2015). Called to Make a Difference: The Experiences of Students Who Thrive on Faith-Based Campuses. *Christian Higher Education*, 14(5), 298–321. <https://doi.org/10.1080/15363759.2015.1079750>
- DeYoung, R. K. (2011). Pedagogical rhythms: Practices and reflections on practice. In D. Smith & J. K. A. Smith (Eds.), *Teaching and Christian practices: Reshaping faith and learning* (pp. 24–42). W.B. Eerdmans Pub. Co.
- Dillon, M. (1996). The Persistence of Religious Identity among College Catholics. *Journal for the Scientific Study of Religion*, 35(2), 165. <https://doi.org/10.2307/1387083>
- Ecklund, E. H., & Scheitle, C. P. (2007). Religion among Academic Scientists: Distinctions, Disciplines, and Demographics. *Social Problems*, 54(2), 289–307. <https://doi.org/10.1525/sp.2007.54.2.289>
- Esqueda, O. J. (2014). Biblical Worldview: The Christian Higher Education Foundation for Learning. *Christian Higher Education*, 13(2), 91–100. <https://doi.org/10.1080/15363759.2014.872495>
- Fawcett, B. G., Francis, L. J., & McKenna, U. (2021). Sustaining Young Canadian Baptists in the Faith: Exploring the Connection between Religious Affect and Parental Religious Attendance. *Journal of Research on Christian Education*, 30(3), 317–336. <https://doi.org/10.1080/10656219.2021.1988013>

- Fowler, J. W. (1995). *Stages of faith: The psychology of human development and the quest for meaning* (First HarperCollins paperback edition). Harper One.
- Funk, R. B., & Willits, F. K. (1987). College Attendance and Attitude Change: A Panel Study, 1970-81. *Sociology of Education*, 60(4), 224. <https://doi.org/10.2307/2112558>
- Gantt, S. D. (2004). *Catechetical instruction as an educational process for the teaching of doctrine to children in Southern Baptist churches* [Ph.D., Southern Baptist Theological Seminary]. <https://repository.sbts.edu/handle/10392/308?show=full>
- Glanzer, P. L. (2023a). Which Institutional Types Are Experiencing Significant Enrollment Decline? Examining the New Data. *Christian Scholar's Review*.  
<https://christianscholars.com/protestant-university-enrollment-trends-from-2021-to-2022-life-is-about-the-percentages/>
- Glanzer, P. L. (2023b, June 23). Which sectors of Christian higher education actually grew during the COVID years. *Christian Scholar's Review*.  
<https://christianscholars.com/which-sectors-of-christian-higher-education-actually-grew-during-the-covid-years/>
- Gunnoe, M. L., & Moore, K. A. (2002). Predictors of Religiosity Among Youth Aged 17-22: A Longitudinal Study of the National Survey of Children. *Journal for the Scientific Study of Religion*, 41(4), 613–622. <https://doi.org/10.1111/1468-5906.00141>
- Haynes, M. B. (2006). *The integration of church and home: A strategic partnership for spiritual formation* [D.min., Liberty University].  
<https://digitalcommons.liberty.edu/cgi/viewcontent.cgi?article=1022&context=doctoral>
- Hembree, J. R. (2007). *Biblical worldview integration for effective ministry* [D.min., Assemblies of God Theological Seminary]. <https://www.proquest.com/docview/304705776>

- Henderson, T., Deckard, S., & DeWitt, D. A. (2003). Impact of a young-earth creationist apologetics course on student creation worldview. *Journal of Creation, 17*, 111–116.
- Hill, J. P. (2009). Higher Education as Moral Community: Institutional Influences on Religious Participation During College. *Journal for the Scientific Study of Religion, 48*(3), 515–534. <https://doi.org/10.1111/j.1468-5906.2009.01463.x>
- Hoge, R., Johnson, B., & Luidens, D. A. (1993). Determinants of Church Involvement of Young Adults Who Grew up in Presbyterian Churches. *Journal for the Scientific Study of Religion, 32*(3), 242. <https://doi.org/10.2307/1386663>
- Horwitz, I. M. (2022). *God, grades & graduation: Religion's surprising impact on academic success*. Oxford University Press.
- Hunter, J. D. (1983). *American evangelicalism: Conservative religion and the quandary of modernity*. Rutgers Univ. Press.
- Iannaccone, L. R. (1990). Religious Practice: A Human Capital Approach. *Journal for the Scientific Study of Religion, 29*(3), 297–314. <https://doi.org/10.2307/1386460>
- Johnson, A., & Lee, M. H. (2023a). *Learning to Lead: An Analysis of the Administrator Pipeline in Christian Schools*. Association of Christian Schools International. <https://www.acsi.org/docs/default-source/website-publishing/research/admin-pipeline.pdf>
- Johnson, A., & Lee, M. H. (2023b). *Tending the Teacher Pipeline: An Analysis of the Teacher Pipeline in Christian Schools*. Association of Christian Schools International. <https://www.acsi.org/docs/default-source/website-publishing/research/teacher-pipeline.pdf>
- King, P. E., Furrow, J. L., & Roth, N. (2002). The influence of families and peers on adolescent religiousness. *Journal of Psychology and Christianity, 21*(2), 109–120.

- Krispin, K. R. (2004). *The relationship between youth ministry involvement and faith maturity in first-year students in a Christian college* [Ed.D., Southern Baptist Theological Seminary].  
<https://www.proquest.com/docview/305122674?pq-origsite=gscholar&fromopenview=true>
- Lee, J. W., Rice, G. T., & Gillespie, V. B. (1997). Family Worship Patterns and Their Correlation with Adolescent Behavior and Beliefs. *Journal for the Scientific Study of Religion*, 36(3), 372–381. <https://doi.org/10.2307/1387855>
- Lee, M. H., Price, E. W., & Swaner, L. E. (2023). *The Flourishing Faith Index: Measuring Biblical Worldview and Spiritual Formation in Christian Schools* (pp. 1–28). Association of Christian Schools International. <https://www.acsi.org/docs/default-source/website-publishing/research/flourishing-faith.pdf>
- Marks, L. (2004). Sacred Practices in Highly Religious Families: Christian, Jewish, Mormon, and Muslim Perspectives. *Family Process*, 43(2), 217–231.  
<https://doi.org/10.1111/j.1545-5300.2004.04302007.x>
- Meyer, K. (2023, June 5). The case for college: Promising solutions to reverse college enrollment declines. *The Brookings Institution*. <https://www.brookings.edu/articles/the-case-for-college-promising-solutions-to-reverse-college-enrollment-declines/>
- Muller, C., & Ellison, C. G. (2001). Religious involvement, social capital, and adolescents' academic progress: Evidence from the National Education Longitudinal Study of 1988. *Sociological Focus*, 34(2), 155–183.
- Otto, P., & Harrington, M. (2016). Spiritual Formation Within Christian Higher Education. *Christian Higher Education*, 15(5), 252–262.  
<https://doi.org/10.1080/15363759.2016.1208594>

- Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students* (First edition). Jossey-Bass Publishers.
- Peterson, B. E. (2006). Generativity and Successful Parenting: An Analysis of Young Adult Outcomes. *Journal of Personality*, 74(3), 847–870. <https://doi.org/10.1111/j.1467-6494.2006.00394.x>
- Prieur, D. (2023). Christian colleges report record enrollment. *WLRN*.  
<https://www.wlrn.org/education/2023-10-18/christian-colleges-report-record-enrollment>
- Rhea, R. (2011). Exploring Spiritual Formation in the Christian Academy: The Dialects of Church, Culture, and the Larger Integrative Task. *Journal of Psychology and Theology*, 39(1), 3–15. <https://doi.org/10.1177/009164711103900101>
- Roberts, K. (2023). Enrollment Increases at Large and Small Christian Colleges. *Ministry Watch*.  
<https://ministrywatch.com/enrollment-increases-at-large-and-small-christian-colleges/>
- Sanders, G. E. (2011). How Christian practices help to engage students morally and spiritually: Testimony from a Western civilization course. In D. Smith & J. K. A. Smith (Eds.), *Teaching and Christian practices: Reshaping faith and learning* (pp. 157–176). W.B. Eerdmans Pub. Co.
- Schultz, K. G. (2012). *Developing an instrument for assessing student biblical worldview* [Ed.D., Regent University].  
<https://www.proquest.com/docview/1268044590/fulltextPDF/A8B49F53FAF34B1FPQ/20>
- Sillman, D. (2023, September 21). Evangelical colleges celebrate best-ever enrollment numbers. *Christianity Today*. <https://www.christianitytoday.com/news/2023/september/record-enrollment-christian-evangelical-college-value.html>



- Simoneaux, C. P. (2015). *A comparative analysis of worldview development and religious commitment between apostolic college students attending apostolic Christian and secular colleges* [Ed.D., Liberty University].  
<https://www.proquest.com/docview/1709469878/8C1B4F3F23B748E3PQ/65?accountid=8361>
- Smith, D. I. (2011). Reading practices and Christian pedagogy: Enacting charity with texts. In D. Smith & J. K. A. Smith (Eds.), *Teaching and Christian practices: Reshaping faith and learning* (pp. 43–60). W.B. Eerdmans Pub. Co.
- Walton, J. A. P., & Walters, M. (2011). Eat this class: Breaking bread in the undergraduate classroom. In D. Smith & J. K. A. Smith (Eds.), *Teaching and Christian practices: Reshaping faith and learning* (pp. 80–101). W.B. Eerdmans Pub. Co.
- Wells, C. A. (2003). *Epiphanies of faith within the academy: A narrative study of the dynamics of faith with undergraduate students involved in Intervarsity Christian Fellowship* [Ph.D. dissertation]. The Ohio State University. [https://mosaic.messiah.edu/hied\\_ed/11](https://mosaic.messiah.edu/hied_ed/11)
- White, F. A., & Matawie, K. M. (2004). Parental Morality and Family Processes as Predictors of Adolescent Morality. *Journal of Child and Family Studies*, 13(2), 219–233.  
<https://doi.org/10.1023/B:JCFS.0000015709.81116.ce>
- Willits, F. K., & Crider, D. M. (1989). Church Attendance and Traditional Religious Beliefs in Adolescence and Young Adulthood: A Panel Study. *Review of Religious Research*, 31(1), 68–81. <https://doi.org/10.2307/3511025>
- Woodrow, J. (2006). Institutional Mission: The Soul of Christian Higher Education. *Christian Higher Education*, 5(4), 313–327. <https://doi.org/10.1080/15363750600860778>

Yenor, S. (2023, April 4). Are there trustworthy Protestant universities? *American Reformer*.

<https://americanreformer.org/2023/04/are-there-trustworthy-protestant-universities/>

## Tables

Table 1. Demographic characteristics descriptive statistics

	<i>n</i>	Mean	Median	SD	Min	Max
	(1)	(2)	(3)	(4)	(5)	(6)
<i>K-12 Christian School Experience</i>						
Years Enrolled	317	9.43	11	3.82	1	14
Highest Grade Enrolled	323	11.95	12	0.52	6	12
Graduate of School	324	0.98				
<i>Satisfaction</i>						
Overall school	324	3.75	4	1.21	1	5
Faith development	324	3.63	4	1.17	1	5
Teachers	324	3.95	4	0.96	1	5
Education	324	4.02	4	1.09	1	5
Likely to recommend	324	3.51	4	1.41	1	5
Average satisfaction	324	3.77	4	1.00	1	5
<i>Educational Attainment</i>						
<i>Highest level of education</i>						
Bachelor's	324	0.66				
Master's or Specialist	324	0.27				
Doctorate	324	0.07				
<i>Undergraduate sector</i>						
Public college/university	324	0.52				
Private nonsectarian	324	0.08				
Private religious	324	0.40				
<i>Demographics</i>						
Male	310	0.39				
White	309	0.95				
Employed full time	323	0.67				

SPIRITUAL FORMATION IN HIGHER EDUCATION

Table 2. Analytic sample faith characteristics

	<i>n</i>	Mean	Median	SD	Min	Max
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Undergraduate Faith Experience</i>						
My faith was under attack	324	2.33	2	1.29	1	5
My faith was supported	324	3.10	3	1.30	1	5
My faith was challenged	324	3.17	3	1.27	1	5
My Christian school prepared me well	324	3.35	4	1.20	1	5
<i>Personal Faith</i>						
Been a Christian for many years	318	0.80				
Attend religious service weekly or more frequently	324	0.64				
Propositional survey (25 items)	324	4.37	4.96	1.12	1	5

Table 3. Two-tailed *t*-tests of differences by undergraduate sector

	Religious Undergraduate			Secular Undergraduate			Difference	SE	<i>p</i> -value
	<i>n</i>	Mean	SD	<i>n</i>	Mean	SD			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>K-12 Christian School Experience</i>									
Years Enrolled	129	9.43	3.87	188	9.44	3.79	-0.01	0.44	0.982
Highest Grade Enrolled	130	11.95	0.53	193	11.94	0.52	0.01	0.06	0.855
Graduate of School	131	0.96	0.19	193	0.98	0.12	-0.02	0.02	0.199
<i>Satisfaction</i>									
Overall school	131	3.98	1.12	193	3.59	1.24	0.40	0.14	0.003 **
Faith development	131	3.88	1.12	193	3.47	1.18	0.41	0.13	0.002 **
Teachers	131	4.18	0.81	193	3.80	1.02	0.39	0.11	0.000 ***
Education	131	4.28	0.91	193	3.84	1.17	0.44	0.12	0.000 ***
Likely to recommend	131	3.83	1.31	193	3.30	1.44	0.54	0.16	0.001 ***
Average satisfaction	131	4.03	0.88	193	3.60	1.04	0.43	0.11	0.000 ***
<i>Highest level of education</i>									
Bachelor's	131	0.63	0.48	193	0.68	0.47	-0.05	0.05	0.348
Master's or Specialist	131	0.31	0.47	193	0.23	0.42	0.08	0.05	0.111
Doctorate	131	0.05	0.23	193	0.08	0.28	-0.03	0.03	0.312
<i>Demographics</i>									
Male	127	0.42	0.50	183	0.37	0.48	0.05	0.06	0.419
White	127	0.98	0.15	182	0.93	0.25	0.04	0.02	0.089
Employed full time	130	0.61	0.49	193	0.72	0.45	-0.11	0.05	0.044 *
Been a Christian for many years	131	0.85	0.35	187	0.76	0.43	0.09	0.05	0.047 *

Notes. Asterisks indicate *p*-values, \*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ .

Table 4. Main results

	Attacked		Supported		Challenged		Prepared	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Religious Undergrad	-0.74*** (0.10)	-0.90*** (0.11)	1.23*** (0.09)	1.26*** (0.10)	0.51*** (0.11)	0.39*** (0.11)	0.41*** (0.11)	0.16 (0.09)
<i>K-12 Christian school experience</i>								
Years enrolled		0.00 (0.01)		0.00 (0.01)		0.00 (0.01)		0.01 (0.01)
Highest grade enrolled		-0.01 (0.12)		0.08 (0.07)		0.07 (0.10)		0.01 (0.05)
Graduated		-0.28 (0.33)		-0.18 (0.20)		-0.20 (0.17)		-0.18 (0.26)
Satisfaction		0.18* (0.08)		-0.10 (0.08)		0.07 (0.08)		0.70*** (0.08)
<i>Educational attainment</i>								
Master's or Specialist		-0.11 (0.12)		0.13 (0.10)		0.12 (0.12)		-0.10 (0.09)
Doctorate		-0.07 (0.24)		-0.03 (0.18)		-0.08 (0.19)		-0.09 (0.17)
<i>Demographics</i>								
Male		-0.09 (0.12)		0.08 (0.11)		-0.01 (0.12)		0.26** (0.10)
White		0.02 (0.34)		0.10 (0.29)		0.13 (0.26)		0.21 (0.18)
Employed full time		-0.03 (0.12)		-0.07 (0.12)		-0.03 (0.12)		-0.14 (0.10)
Been a Christian for many years		0.34 (0.18)		0.27 (0.18)		0.77*** (0.17)		0.21 (0.17)
Constant	0.30*** (0.07)	0.51 (1.34)	-0.50*** (0.05)	-1.59 (0.92)	-0.20** (0.07)	-1.51 (1.28)	-0.17* (0.07)	-0.44 (0.42)
Mean (Religious Higher Ed)	1.76	1.74	4.05	4.10	3.55	3.56	3.65	3.70
Mean (Secular Higher Ed)	2.72	2.79	2.46	2.43	2.91	2.93	3.16	3.19
<i>n</i>	324	290	324	290	324	290	324	290
Adj. <i>R</i> -squared	0.1311	0.1964	0.3614	0.3700	0.0588	0.1414	0.0379	0.4199
<i>F</i> -statistic	53.94	7.89	176.34	20.65	21.58	7.69	14.15	21.53

Notes. Heteroskedasticity-robust standard errors in parentheses. Asterisks indicate *p*-values, \*\*\* *p* < 0.001, \*\* *p* < 0.01, \* *p* < 0.05.

Figures

Fig. 1. Mediator analysis of attending a religious college or university

