

Spirituality on Faith-Based Campuses: A Mixed-Methods Study Exploring the Contribution of
Spirituality to Student Thriving

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Purpose of the Study

The most basic definition of student success encompasses student entrance to college and completion of a certificate or degree. This definition forms the basis of arguments emphasizing increased access, enrollment, and persistence (Bowen, Chingos, & McPherson, 2009; Hauptman, 2007; Kinzie, 2012). Student success is often equated with graduation; as a result, theories of student success that have arisen from this definition are based on persistence models (e.g., Braxton, 2000; St. John, Cabrera, Nora, & Asker, 2000; Tinto, 1975, 1993). Using this perspective, student behaviors predictive of graduation have been outlined as the target of student success initiatives; such behaviors include, but are not limited to, campus involvement (Astin, 1984, 1993), feeling sense of mattering within the collegiate community (Schlossberg, 1989) and interaction with faculty (Chickering & Gamson, 1987; Kuh & Hu, 2001).

In recent years, research exploring student success has emerged in ways that extend beyond the fundamental benchmarks of college completion rates and grades. Such expanded foci have included learning gains (Barr & Tagg, 1995), talent development (Kuh, Kinzie, Schuh, Whitt, & Associates, 2005), satisfaction (Schreiner & Nelson, 2013), sense of belonging (Hurtado & Carter, 1997), and student engagement (Kuh, 2001). Kuh, Kinzie, Buckley, Bridges, and Hayek (2007) created perhaps the broadest conceptualization of student success as academic achievement, engagement in educationally purposeful activities, satisfaction, acquisition of desired knowledge, skills and competencies, persistence, attainment of educational objectives, and post-college performance.

Most of the focus in current student success research, however, focuses on student engagement. The concept of student engagement originates from Pace's (1980) measures of quality of effort and Astin's (1984) theory of involvement and represents two key components.

The first is the amount of time and effort students put into their studies and other activities that lead to student success outcomes. The second component of this perspective of student engagement is how institutions of higher education allocate their human and other resources and organize learning opportunities and services to encourage students to participate in and benefit from such activities (Kuh, 2001). Discussion and research on engagement in higher education is due largely to the expansive research conducted at Indiana University through the National Survey of Student Engagement (NSSE).

A need exists for a perspective on student success that expands beyond student behaviors, graduation rates, and academic performance to include psychological well-being and optimal functioning. Such a perspective has emerged in recent years from the positive psychology movement and its intersection with higher education (Schreiner, Hulme, Hetzel, & Lopez, 2009) in a construct labeled *thriving* (Schreiner, 2013). The construct of thriving explores the psychosocial factors in the minds of students that precede the behaviors of engagement. Important to the understanding of student thriving are faculty-student interaction, campus involvement, psychological sense of community, and spirituality.

In the past decade, a renewed research focus in higher education has emerged examining the role of spirituality in the lives of students (Astin, Astin, & Lindholm, 2011a; Rockenbach & Mayhew, 2014). Although research in higher education has previously ignored the role of spirituality in student success, recent studies indicate spirituality is an important aspect in the lives of students and faculty (Astin, Astin, & Lindholm, 2011a; Astin et al., 2011b).

Distinguished from religiosity, a reflection of an adherence to doctrines and behavioral practices, spirituality is a broader construct. Astin et al. (2011b) explain that spirituality encompasses:

...our sense of who we are and where we come from, our beliefs about why we are here – the meaning and purpose that we see in our work and our life – our sense of connectedness to one another and to the world around us. (p. 4)

Palmer (1999) states simply that spirituality is “the ancient and abiding human quest for connectedness with something larger and more trustworthy than our egos” (p.6). Spirituality is an important means by which students cope with the difficulties of college life and make meaning about the world in which they live and study (Astin et al., 2011b).

Exploration of the intersection between student success and spirituality is in its infancy in the literature. American higher education is a mix of secular and faith-based models of postsecondary education. Connecting the work of faith-formation, or the role of spirituality among learners at faith-based campuses is an unexplored aspect of the higher education literature. A 2010 symposium on spiritual formation hosted by the Coalition for Christian Colleges and Universities deemed spiritual formation *the* distinctive characteristic of Christian higher education (CCCU, 2011).

Understanding the role of spirituality on faith-based institutions then becomes important if the spiritual formation of students becomes the sole characteristic feature distinguishing Christian colleges from their secular counterparts. Faith-based campuses are colleges that purposefully integrate a specific worldview or set of beliefs with the curricular and co-curricular aspects of college life. Faith-based campuses pride themselves on the richness of integrating faith and learning (Braskamp, Trautvetter, & Ward, 2006) and have a responsibility to support students spiritually (Ma, 2003).

Addressing the spiritual needs of students is one means of ensuring and building a sense of affinity to the campus community (Bryant & Astin, 2008). Institutional fit has long been

connected to student persistence (Tinto, 1975). Students on faith-based campuses who do not hold similar faith orientation to the majority seek to understand their fit at campuses in light of their faith perspective (Fairchild, 2009).

Although spirituality has received greater focus over the past ten years (Astin, Astin & Lindholm; Bryant Rockenbach & Mayhew, 2012; Chickering, Dalton, & Stamm, 2006), the role of spirituality in student development deserves further exploration. Students identify spirituality as an important aspect of life and show great interest in exploration of spirituality during their collegiate studies (Astin, Astin, & Lindholm, 2010; Eckel, 2009). Spirituality among adolescents approaching adulthood may also become the catalyst for hostility and apathy in college students (Bryant, Choi, & Yasuno, 2003). Although some theoretical literature exists concerning college students and spirituality, Bryant (2008) suggests there exists need for further empirical exploration of the role of spirituality among college students. Current research has focused on spirituality more generally. However, a gap in the literature exists regarding the role of spirituality on faith-based campuses (CCCU, 2011). This study seeks to understand the significance of spirituality on student thriving in the specific context of faith-based, four-year institutions.

Conceptual Framework

Although behavior-based theories by Pace (1969, 1979, 1980, 1984) and Astin (1968, 1977, 1984) have been a hallmark of higher education over the past three decades, researchers have argued that psychological measures of engagement are worthy of consideration, as well (Bean & Eaton, 2002; Pascarella & Terenzini, 2005). Robbins, Lauver, Le, Langley, Davis and Calstrom's (2004) meta-analysis established the incremental validity of psychosocial factors as predictors of student success; Schreiner (2013) and others (Schreiner, McIntosh, Nelson, &

Pothoven, 2009) have explored these psychosocial factors through the construct of *thriving*. This approach includes academic factors but also acknowledges the importance of personal well-being and healthy relationships with others as vital components of a successful student experience.

The construct of thriving was derived from research on flourishing within adult populations that emerged from the positive psychology movement. Human flourishing is conceptualized as positive emotions and optimal well-being (Keyes, 2002). Flourishing “exemplifies mental health” (Keyes & Haidt, 2003, p. 6) and is evident in individuals who are experiencing life to its fullest rather than simply existing. Flourishing individuals are resilient in the face of life’s challenges, demonstrate personal growth and optimism through adversity, set and pursue goals, and connect emotionally to the world (Keyes & Haidt, 2003). Individuals who flourish bring this perspective into the world around them, positively and indelibly changing their world.

Thriving is based on a conceptualization of student engagement and persistence as psychologically motivated (Bean & Eaton, 2002). The construct of thriving builds on the psychological well-being implied in flourishing and encompasses elements critical to college students’ success: academic engagement, effort regulation, citizenship, openness to diversity, goal-setting, optimism, and self-regulated learning (Schreiner, McIntosh et al., 2009). Thriving students are fully engaged intellectually, socially, and emotionally (Schreiner, Pothoven, Nelson, & McIntosh, 2009).

The study of thriving focuses on student well-being and is grounded in Bean and Eaton’s (2002) psychological model of student retention. From this perspective, retention is not merely a

function of student behavior, but is rather an outward function of what is happening in the minds of students. Students who are psychologically engaged in life and vibrantly connected to the world around them are engaged with all aspects of their learning and the community within which they learn, which leads to persistence.

Bean and Eaton's (2002) psychological model of student retention builds on Tinto's (1975) sociological model. A process of interaction between the student and the institution, as identified by Bean and Eaton, is reciprocal and iterative, leading to "academic and social integration, institutional fit and loyalty, intent to persist, and to the behavior in question, persistence itself" (p. 58).

Three Domains of Thriving

Thriving occurs within three domains: (a) academic thriving, (b) interpersonal thriving, and (c) intrapersonal thriving (Schreiner, McIntosh et al., 2009). Academic thriving includes psychological constructs previously linked to academic success, such as learning engagement (Schreiner & Louis, 2011), self-regulated learning and effort regulation (Pintrich, 2004; Pintrich, Smith, Garcia, & McKeachie, 1993; Robbins et al., 2004), environmental mastery (Ryff, 1989), and hope (Snyder, 1995). Intrapersonal thriving includes measures of student perceptions of the quality of their circumstances in life and includes items measuring optimism (Luthans, Youssef, & Avolio, 2007) and subjective well-being (Diener, Suh, Lucas, & Smith, 1999). Interpersonal thriving explores the social connections of life, such as positive relationships (Ryff, 1989), openness to diversity (Miville, Gelso, Pannu, Holloway, & Fuertes, 1999), and civic engagement, with a desire to make a difference in one's community (Tyree, 1998).

Five Factors of Thriving

Together, all three domains of thriving measure factors that are psychologically rooted and amenable to change through intervention (Schreiner, 2010a). Each domain within thriving is measured through a combination of one or more factors. Through a confirmatory factor analysis, a five-factor model of thriving emerged (Schreiner, McIntosh et al., 2009). The results of the structural equation modeling analysis indicated that both the measurement model of each factor and the structural model predictive of thriving were a strong statistical fit for the data collected. These results mean that the items measuring each factor of thriving were strong indicators of the proposed construct of thriving and that scores on the five-factor thriving scale were significantly predictive of elements of student success that tend to be valued within higher education, such as persistence, GPA, and institutional fit (Schreiner, Pothoven et al., 2009). A second-order factor of *thriving* was also identified through structural equation modeling; the presence of a second-order factor means that there is evidence that the construct of thriving is more than the sum of its five scales, but is a unique construct on its own. Each of the five factors that comprise the construct of thriving is described.

Engaged Learning. Demonstrating both behavioral actions and the psychological processes reflective of deep learning (Schreiner & Louis, 2011), Engaged Learning is “defined as a positive energy invested in one’s own learning, evidenced by meaningful processing, attention to what is happening in the moment, and involvement in specific learning activities” (p. 6). The Engaged Learning factor assesses the meaningful processing and focused attention inherent in Tagg’s (2004) concept of *deep learning* and Langer’s (1997) concept of *mindfulness*. Rather than assessing primarily behavioral indicators as evidence of learning engagement, this component of academic thriving measures the psychological processes underlying such engagement (Schreiner, McIntosh et al., 2009).

Academic Determination. Academic Determination reflects a student's ability to self-regulate his or her learning, set goals, master the learning environment and shape it to suit his or her needs, and set achievable goals. Students with high Academic Determination can self-regulate and contextualize the amount of effort required to overcome specific challenges (Pintrich, 2004; Pintrich, 2000; Pintrich et al., 1993); here, self-regulation is both cognitive and behavioral and is associated with internal thoughts and perceived external pressures. Environmental mastery reflects students' ability to manage their time and resources appropriately (Ryff, 1989). Academic hope is comprised of two dimensions: willpower (agency) and waypower (pathways), where agency is the motivation to move toward one's goals, and pathways is the perception that strategies exist to reach one's desired destination (Snyder, 1995).

Positive Perspective. A positive perspective can be described as one's ability to have a confident attitude on broad dimensions of life's outlook, direction, and purpose and is a combination of optimism (Carver, Scheier, Miller, & Fulford, 2009) and subjective well-being (Diener et al., 1999). Optimism "reflects the extent to which people hold generalized favorable expectancies for their future" (Carver, Scheier, & Segerstron, 2010, p. 879) and is favorably linked with higher levels of subjective well-being, better coping skills, and mental engagement (Scheier, Carver, & Bridges, 1994). Subjective well-being is more than mere happiness and reflects "a broad category of phenomena that includes people's emotional responses, domain satisfactions, and global judgments of life satisfaction" (Diener et al., 1999, p. 277).

Diverse Citizenship. Diverse Citizenship is a measure of openness to differences and the desire and belief that one is capable of making a contribution to one's community. Diverse Citizenship reflects the desire to act for the good of the community on behalf of others (Tyree, 1998) and includes the embracement of diversity (Fuertes, Miville, Mohr, Sedlacek, & Gretchen,

2000). Items from the Universal-Diverse Orientation construct (Miville et al., 1999) and the *Socially Responsible Leadership Scale* (Tyree, 1998) were adapted for college students and comprise the Diverse Citizenship scale. Within the context of thriving, the desire to positively contribute to the community forms the basis of the Diverse Citizenship scale within the Thriving Quotient.

Social Connectedness. The Social Connectedness scale of the Thriving Quotient focuses upon the benefits of close friendships, specifically those upon whom one can rely in times of need. Positive communal potential is one indicator of a vibrant campus culture where students feel they can find, join, and build community with one another (Braxton & Hirschy, 2004). Positive social integration is identified in the literature as an important aspect of student retention (Braxton, Hirschy, & McClendon, 2004; Tinto, 1993); additional research specifically confirms that such communities positively impact the college experience for students of color (Anglin & Wade, 2007; Nora, Cabrera, Hagedor, & Pascarella, 1996; Nuñez, 2009; Walton & Cohen, 2007; Zirkel, 2004).

Spirituality

Faith development, spirituality, and religiosity have not historically been a focus of research in higher education; aspects of higher education such as the development of the mind, have instead historically been the attention of researchers. More recently, however, researchers have published studies focused on constructs such as religious practice, spirituality, faith formation, character development, and life calling (Astin et al., 2011b; Braskamp et al., 2006; Chickering et al., 2006; Jablonski, 2001; Parks, 2000). A longitudinal study of spirituality in higher education (Astin et al., 2011b) found that the vast majority of students categorize themselves as spiritual. The former Hellenistic dualistic perspective, that the academic aspects

of students and faculty can and should be separate from the personal and spiritual aspects, is perhaps not a reflection of reality (Dawson, 2010). A recent exploration of student spirituality in college explored recent literature and trends, student characteristics and group differences, college environments, and outcomes with regard to student spirituality (Rockenbach, & Mayhew, 2013).

Despite a vast literature on faith formation, beginning with Fowler's research in 1981, research exploring the intersection of spirituality and learning in the broader university arena remains relatively unexplored. Astin et al. (2011b) characterized the modern approach to secular education as "impersonal and fragmented" (p. 7) and urged educators to consider a more holistic approach to education that connects the mind and spirit to "an education that examines learning and knowledge in relation to an exploration of self" (p. 7). Astin et al. argued that a return to such an education would require faculty and students to explore more deeply and intimately the existential questions of life including: Who am I? What is my purpose in life? and What kind of person am I in the process of becoming?

Researchers have noted that there are conceptual differences between spirituality, religiosity, and faith (Astin et al., 2011b; Bosacki, 2005; Braskamp et al., 2006; Chickering et al., 2006; Parks, 2000). Braskamp et al. (2006) defined faith as "a student's nonrational, affective, and ethical dimensions" (p. 21), similar to Astin's (2004b) definition of the "interior" of an individual. Religion, however, is generally associated with a set of specific beliefs associated with dogma or doctrine (Zinnbauer, Pargament, & Scott, 1999). Membership is the hallmark Miller (2004) attributed to the distinction between faith and religion. He argued that social boundaries establish membership in a religion based upon a set of beliefs. In contrast, spirituality is defined by Astin et al. (2011b) as:

...our sense of who we are and where we come from, our beliefs about why we are here – the meaning and purpose that we see in our work and our life – our sense of connectedness to one another and to the world around us. Spirituality can also bear on aspects of our experience that are not easy to define or talk about, such things as intuition, inspiration, the mysterious, and the mythical ... highly spiritual people tend to exemplify certain personal qualities such as love, compassion, and equanimity. (p. 4)

Although Braskamp et al. (2006) stated that faith, religiosity, and spirituality are interrelated, this study focuses on the relationship between spirituality, as it relates to a reliance on a higher power when life is difficult, and student success. For example, it has been demonstrated that students who develop spiritually throughout college are more likely to pursue careers and life directions that align with their deepest beliefs (Dalton, 2001).

Students can benefit from the positive impacts of a healthy spiritual self. Astin et al.'s (2011b) landmark longitudinal study of spirituality in higher education found that students with higher spirituality scores were more satisfied with college, received higher grades, were more likely to desire inner peace in times of hardship (equanimity), were more embracive of diversity, and exhibited higher academic self-esteem. Interacting with faculty positively correlated with student spiritual questing. Findings indicated that students reported higher spiritual questing scores when faculty encouraged them to think about life purpose and meaning.

Current literature suggests there are new ways of understanding student success in college that may include the non-cognitive, or psychosocial characteristics of students (Bean & Eaton, 2002). Research suggests that one potential contributor to understanding student pathways to success is spirituality (Astin, 2004a; Astin, Astin, & Lindholm, 2011; Braskamp, Trautvetter, & Ward, 2006; Chickering, Dalton, & Stamm, 2006; Jablonski, 2001; Nash, 2008).

The purpose of this study is to explore the relationship between spirituality and individual student thriving on faith-based campuses after controlling for student background, institutional context, interpersonal relationships, and institutional experiences. The term spirituality refers to a personal process that seeks both intra-personal and interpersonal connection to self and others, personal realization, and authenticity originating from a willingness to follow a higher power that surpasses human intelligence or comprehension (Bryant & Astin, 2008).

Bryant and Astin (2008) noted the significance spirituality might have in forming a student's sense of belonging at a university, while also fostering discovery of meaning and purpose in life. A 2012 study (McIntosh) of nearly 8,000 students across 59 institutions found significant relationship between student spirituality and student success. Among the groups explored in the study, spirituality was an important mediating variable in understanding the variation in thriving.

Methods

This study utilized a mixed-methods sequential explanatory style (as cited in Clark & Creswell, 2008) to explore the relationship between spirituality and thriving among students on faith-based campuses. Qualitative antecedents to thriving were explored through interviews with students who significantly increased or decreased in levels of thriving over the course of a semester. Interview questions explored individual pathways to thriving by focusing on academic, social, and spiritual engagement, practices, and outcomes of students (Appendix B). This study includes 622 students from five religiously affiliated institutions, four in the United States and one in Canada. Interviews were completed with 23 students.

In this research study, thriving was used as the dependent variable and is measured using the *Thriving Quotient (TQ)*. The *TQ* is a reliable and valid instrument of 25 items ($\alpha = .88$)

administered through an online survey measuring thriving on a 6-point Likert scale. Thriving is identified through confirmatory factor analysis and is identified as a second-order factor ($\chi^2_{(114)} = 1093.83$, $p < .001$, CFI = .954; RMSEA = .054 with 90% confidence intervals from .052 to .058) (Schreiner, McIntosh, et al., 2014). Significant predictors of thriving are a psychological sense of community, faculty-student interaction, campus involvement, and spirituality.

The TQ consists of five factors: *Academic Determination*, a measure of students' academic effort, use of time, investment in learning, and goal direction; *Engaged Learning*, the extent to which a student meaningfully processes information from class, expends effort thinking about concepts from coursework outside class, and is energized by what he or she is learning; *Social Connectedness*, the extent to which students are engaged in meaningful relationships of mutual support on or off campus; *Diverse Citizenship*, the desire of students to influence the community around them and the openness of students to diversity (Schreiner, McIntosh et al., 2009).

This study explores the role of spirituality in predicting thriving among students at faith-based institutions after controlling for student characteristics and incoming levels of student thriving. Three reliable survey items ($\alpha = .95$) compose the construct of spirituality for this study adapted from the Religious Commitment scale of the College Students Beliefs and Values (CSBV); (a) My spiritual or religious beliefs provide me with a sense of strength when life is difficult; (b) My spiritual or religious beliefs are the foundation of my approach to life; and (c) I gain spiritual strength by trusting in a higher power beyond myself. Spirituality is a developing construct and is represented as an independent variable in relation to this study on thriving.

The TQ was administered during the first week of college to students on five religiously-affiliated colleges; four in the United States and one in Canada. Table 1 outlines the

demographic characteristics of the sample for this study. Appendix 1 notes the informed consent each student signed in relation to the interview and subsequent use of data for research purposes.

Table 1

Demographic Characteristics of Participants (N = 622)

Variable	Total	
	<i>N</i>	%
First Generation		
Yes	122	19.70
No	496	80.30
Gender		
Female	473	77.80
Male	135	22.20
Race		
African American	12	1.93
American Indian / Alaska Native	1	0.16
Asian / Pacific Islander	81	13.02
Caucasian / White	390	62.70
Latino	76	12.22
Multiracial	39	6.27
International Student	1	0.16
Prefer Not to Respond	22	3.54
First Choice		
Yes	369	62.90
No	218	37.10
On Campus		
Yes	477	77.10
No	140	22.60
Class Level		
Freshman	495	80.60
Sophomore	47	7.70
Junior	38	6.20
Senior	24	3.90
Other	10	1.60

All participating institutions were of the protestant Christian tradition, however the institutions represented a variety of expressions within the protestant tradition. Students were asked to complete the *TQ* again during the final weeks of the fall semester. Data were matched from each survey administration and participants who completed both administrations were included in the final analysis. Interview questions were created to further understand individual pathways to thriving by focusing on academic, social, and spiritual engagement, practices, and outcomes of students who identified considerable improvement or decreasing of thriving through a second completion of the *TQ*.

Some participants chose not to complete aspects of the survey and therefore some data points were missing. In order to determine the extent of missing data in the dataset, analysis in SPSS was conducted to explore the characteristics of the missing data. The only distinct pattern observed among missing data indicated a correlation between missing data and placement of items in the survey; the later the item displayed in the survey, the more likely that it was missing. No demographic patterns emerged in the missing data; no patterns indicated any particular kind of student experienced survey fatigue. Thus, missing data were estimated in MVA using Expectation Maximization as recommended by the educational research (Cheema, 2014) and statistical literature (Tabachnick & Fidell, 2007), resulting in a complete and usable dataset of $N = 560$ participants.

A hierarchical multiple regression analysis was completed to predict end of semester levels of thriving among participants after controlling for beginning semester thriving levels. Blocks within the regression analysis were constructed based upon the literature utilizing Astin's (1984) I-E-O model of inputs, environments, and outcomes, as well as previous predictive research on thriving (Schreiner, Pothoven, et al., 2009). Control for demographic characteristics,

and pre-college characteristics entered into block 1 of the equation. Scores of the spirituality subscale of the *TQ* from the first survey administration entered into block 2 to control for the influence of student spirituality. Pre-test factor scores from the *TQ* were also controlled for in block 3 followed by on-campus residence status in block 4. The campus experience variable peer satisfaction entered the equation in block 5. An observed variable of faculty-student interaction became block 6, and psychological sense of community (PSC) entered as block 7. Table 2 displays the hierarchical multiple regression analysis.

Table 2

Simultaneous Hierarchical Multiple Regression Analysis Summary for Student Demographic Characteristics, Initial Levels of Spirituality, Initial Levels of Thriving, Living on Campus, Peer Satisfaction, Faculty Interaction, and Psychological Sense of Community on Subsequent Thriving (N=560)

Variable	<u>B</u>	<u>SE B</u>	β	
Block one: Demographic Characteristics				
Freshman	-0.33	0.34	-0.04	
White	0.28	0.26	0.04	
Female	1.19	0.30	0.17***	
High school GPA	0.26	0.15	0.07	
First choice	0.79	0.26	0.13**	
R ²				0.059***
Adjusted R ²				0.050***
Block two: Spirituality				
Freshman	-0.09	0.30	-0.01	
White	0.25	0.23	0.04	
Female	0.97	0.27	0.14***	
High school GPA	0.14	0.13	0.04	
First choice	0.24	0.23	0.04	
Spirituality	1.54	0.12	0.47***	
R ² change				0.211***
R ²				0.269***
Adjusted R ²				0.261***
Block three: Thriving pretest				

Freshman	0.37	0.21	0.05	
White	-0.18	0.16	-0.03	
Female	0.40	0.18	0.06*	
High school GPA	0.02	0.09	0.01	
First choice	0.02	0.16	0.00	
Spirituality	0.71	0.09	0.22***	
Pretest	0.71	0.03	0.70***	
R ² change				0.390***
R ²				0.659***
Adjusted R ²				0.655***
Block four: On Campus				
Freshman	0.17	0.23	0.02	
White	-0.22	0.16	-0.04	
Female	0.36	0.18	0.05	
High school GPA	0.00	0.09	0.00	
First choice	0.03	0.16	0.00	
Spirituality	0.72	0.09	0.22***	
Pretest	0.71	0.03	0.70***	
On Campus	0.41	0.21	0.06	
R ² change				0.002
R ²				0.661
Adjusted R ²				0.656
Block five: Peer Satisfaction				
Freshman	0.04	0.22	0.01	
White	-0.19	0.15	-0.03	
Female	0.36	0.18	0.05*	
High school GPA	0.05	0.09	0.01	
First choice	-0.19	0.15	-0.00	
Spirituality	0.60	0.09	0.18***	
Pretest	0.63	0.03	0.62***	
On Campus	0.23	0.21	0.03	
Peer Satisfaction	0.61	0.09	0.19***	
R ² change				0.026***
R ²				0.687***
Adjusted R ²				0.682***
Block six: Student-Faculty Interaction				
Freshman	0.15	0.22	0.02	
White	-0.24	0.15	-0.04	
Female	0.37	0.17	0.05*	
High school GPA	0.09	0.09	0.02	
First choice	-0.04	0.15	-0.00	
Spirituality	0.58	0.09	0.18***	

Pretest	0.61	0.03	0.60***
On Campus	0.25	0.20	0.03
Peer Satisfaction	0.51	0.09	0.16***
Student-Faculty Interaction	0.45	0.08	0.15***
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R ² change			0.019***
R ²			0.706***
Adjusted R ²			0.700***
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Block seven: Psychological Sense of Community			
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Freshman	0.06	0.21	0.07
White	-0.21	0.15	-0.03
Female	0.41	0.17	0.06*
High school GPA	0.13	0.08	0.04
First choice	-0.13	0.15	-0.02
Spirituality	0.39	0.09	0.12***
Pretest	0.58	0.03	0.58***
On Campus	0.18	0.20	0.03
Peer Satisfaction	0.29	0.10	0.09*
Student-Faculty Interaction	0.38	0.08	0.12***
PSC	0.62	0.11	0.18***
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R ² change			0.015***
R ²			0.721***
Adjusted R ²			0.716***
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***p<.001, **p<.005, *p<.05

Results

The findings of this study indicated that pre-college characteristics of thriving were the greatest predictors of thriving during college, $R^2 = 0.659$, $F(1, 552) = 630.70$, $p < .001$, while early semester measures of spirituality contributed significantly to post-test thriving generally, $R^2 = 0.269$, $F(1, 553) = 159.50$, $p < .001$, across the model examined. A subsequent analysis of the variation of thriving was explored through similar block regression analysis to determine the extent of variation in thriving predicted by the change in spirituality over a semester. A subsequent regression analysis exploring the predictability of end of semester thriving utilizing the variation in spirituality scores across the semester demonstrated that 2% ($p < .001$) of the variation in end of semester thriving could be explained by increases in spirituality over the semester.

Interviews with participants who demonstrated considerable increased thriving or decrease in thriving across the longitudinal study provided voice to the student experience of college thriving. Among those interviewed, three emerging themes were the students' sense of a positive perspective, a sense of calling, and a perspective of faith, or spirituality, as an anchor behind all things. Interviewed participants noted that their positive perspective on life was grounded in the sense that God was in control of all things. Participants also noted a sense of calling to make a difference in the world; this calling was rooted within their faith framework. Participants also indicated that faith became a powerful lens and decision-making influence through which they gained perspective on the world.

Following completion of transcription and coding of qualitative interviews, three themes were identified in relation to the role of, and need for, spiritual development to further encourage and support collegiate thriving. Interviewees shared experiences both inside and outside of the collegiate classroom that spoke of the role of spirituality in thriving changes over their collegiate experience. Three themes most identified included spirituality as a promoter of positive perspective, spirituality as a catalyst to calling, and spirituality as engaged in all aspects of one's life.

Positive Perspective and Spirituality

Positive perspective was a vital theme that was expressed in almost every interview. In interviews where the concept was not a theme, thriving was noticeably lacking or had decreased for the participant. The role of spirituality in connection with positive perspective was noticeable as a crucial component of a student's ability to see life from an optimistic viewpoint. Students who showed high levels, or increasing levels, of thriving believed that they had a choice in the way they viewed and responded to the circumstances of their lives, exhibiting an ability to

reframe their thinking thereby aiding them in achieving a more successful outcome. Participants named their spirituality in general and their faith in God in particular as primary motivators for their belief that positive outcomes are possible in even the worst of situations. Susan, a west-coast nursing student, stated that thriving was “dependent on your relationship with God, how you take care of yourself and people around you because those are consistent things whereas circumstances are always changing.” For Susan, positive relationships and connections to others were correlated with her personal perspective of thriving in ways congruent with Seligman’s (2011) theory of well-being. Kevin, a Caucasian student at a northeastern college spoke about the role of his personal spirituality and synthesis as enhancing an ability to view his outlook optimistically, “I think blending all those (spiritually-related) things honestly just gave me a sense of, ‘Yes, I’m doing pretty good.’”

Previous studies of thriving have noted a connection between satisfaction with college and a positive perspective (Schreiner, Pothoven, et al., 2009). Mani, an Asian American student at a southwest institution, noted the role of spirituality in her positive outlook during difficult times of her collegiate experience. Replying to our query about what helped her keep a positive and optimistic outlook in college she replied:

Probably my relationship with God because last ... during the winter break, that’s when I’d had like a hard time with school and everything and just reading different Christian books...those kind of just like renewed my faith in God and were very encouraging to me.

For Mansi, her spirituality and connection with a higher power fostered a sense of optimism and subsequent perseverance to continue towards graduation. This supports Astin et al.’s (2011b)

definition of spirituality as inspiration, even during difficult times. This inspiration often leads to further perseverance towards another key aspect of spirituality, calling and purpose.

Gene Augustine, an African-American male, provided the following perspective on his personal thriving,

I am a 5.35 in terms of thriving...When you're up at 2:00 in the morning talking with the guy who just wants to have a biblical conversation with you for no real reason. It's just like, that's amazing. That's thriving...

For Gene Augustine, the connection between his perspective on thriving and his spirituality strengthen both the transcendent nature of belief and reliance in a higher power, and the important role spirituality can play among African American men (Walker & Dixon, 2002; Constantine et al., 2006).

Calling and Spirituality

We noted a distinct connection among our participants when discussing calling and spirituality. Students overwhelmingly connected their education, and future vocation, to a sense of calling on their lives from a higher power and in service to that power and humanity as a whole. The concept of thriving in action and towards calling and meaning in life emerged in most of the interviews conducted. Students noted a sensed need for connection to a greater power and purposeful calling to truly be thriving within the context of their postsecondary journey. Gene Augustine expressed a strong connection of calling and spirituality on his sense of academic thriving, supporting his vocational goals. He stated,

Lord you've given me a calling for your people and a love for your people. You want me to go all over the place; you want me to use the skills that I'm going to use as a nurse to

do that. I don't know how, when, why, how long, I'm leaving the country forever but it's one of those now I'm just excited to see what the Lord is going to do next.

Joshua, from an east coast institution, spoke of spirituality as a driving force behind the pursuit of education in order to be best equipped to fulfill a vocational calling. He stated,

And so just understanding, like, education in itself is good. I don't have to do anything like with it like important again, whatever that means. But it's developing your mind in a way that I can serve God better...It's almost like understanding that education isn't part of a formula of success but it's to expand your mind and to better understand the world that God created and the different facets of it.

Many students noted the personal role of faculty in relation to encouraging them in the spiritual discovery and formation, while few actually identified any experiences that would help understand the application of calling in a more secular setting outside of the Christian institutions.

Institutions still hold the responsibility of teaching students how to share and live out spirituality in a way that can edify their own thriving while being tolerant to those to whom they serve. Summer, a student from the northwest who participated in mission experiences at her institution, noted the negative aspect of sharing and living out spirituality while not understanding how to do so in a contextually-significant manner. These negative aspects impacted her personal sense of thriving; causing a sense of doubt and unpreparedness in relation to the transition of education into practice that will positively impact the world around her. She stated,

I think, initially, the immediate feeling is, 'oh, I'm such a good person in going overseas to help people and what not,' and so I think it's a big boost for yourself specifically. I

had read a book from one of my classes that was talking about the harm that a lot of church was doing and that really changed the way I thought of it and even though those trips are still something I want to do, the focus of it, I guess, has just changed.

Christian universities and colleges define their distinctiveness within their desire to form the spiritual lives of students through integration of spirituality into all elements of life. While this theoretically sounds conducive to student development and effectiveness during college and beyond, further focus on application and practice is needed. Stacey stated succinctly the overarching need for spirituality to not only be understood correctly but also practiced effectively in relation to every aspect of life. “True education comes when every aspect of the university experience works to help you understand who it is God has made you, who it is God is calling you to be, and what lessons in life you need to go through now to get there.”

Spirituality as Life’s Driving Force

Students at Christian institutions who were interviewed did not see spirituality as a simple *component* of their thriving. Mary, a student at a west-coast Christian institution, noted spirituality as *the* catalytic factor in her collegiate thriving. She states, “I think I need to improve in my spirituality in order to be fully thriving.”

A Catholic Latina at a southern school from the Baptist tradition, Valeria stated, “because of these (religious) courses I think I grew so much more closer to Jesus Christ as our savior. Coming here really just made that bond so much stronger.” Valeria continued that her religious sense of self provided her an ability to manage stress. Minority status on campus can be a substantial stressor for students (Moritsugu & Sue, 1983), yet appropriate coping mechanisms can encourage positive well-being (Wethington, 2003). Valeria’s comments echo similar characteristics to the links Cervantes and Parham (2005) found between the spirituality and faith

practices of Latinos and healthy psychological well-being. Lucy, a student in an honors program connected her need to know what she believed:

Oh, now I actually need to know what I believe in. Why I believe it, because maybe I need to be able to explain this to people. So that was really interesting. It was an awesome process of like reading all of the church fathers and a whole lot of Googling things when people ask me questions.

Joshua from eastern college said “I believe that my faith has contributed to my belief that life has something better and life has a deeper meaning and that we’re all here for a purpose and we have something to give and get back, something to create. So it’s given me hope ‘cause hope is hard to come by in my world a lot of times.

Joe commented about his experience the previous semester:

“Honestly, I had a well-balanced understanding of academic life, my social life, and then my faith and then my involvement in the church. I think all those attributes in my life, when well balanced, give me a peace or a sense of happiness, contentment and that I know that I’m putting equal amounts of work into these different aspects... I think blending all those things honestly just gave me a sense of ‘Yes, I’m doing pretty good. I’m on track.’”

Conclusions and Significance of the Study

The findings of this study reinforce previous connection between spirituality and thriving (McIntosh, 2012; Schreiner, McIntosh, et al., 2011). Quantitative analysis demonstrates the importance of preexisting spirituality in relation thriving. The exploration of qualitative data allowed a more rich understanding of the connection between thriving and reliance in a higher

power during the difficult times in life. This study specifically illuminates the connection between spirituality and student success on faith-based campuses.

The stability of thriving as a measure was further demonstrated by this study. Variation in thriving $R^2 = 0.057$, $F(1, 554) = 6.89$, $p < .001$ was explained by the campus variables in the regression analysis. Preexisting levels of thriving among students varied by institution, however purposeful interventions were not part of this study in order to specifically attempt to increase levels of thriving. Thus, any increases in thriving were due to the natural course of life and study on campus for each participant and no causal relationship can be asserted. Further study on thriving could focus on specific interventions intended to increase thriving and examine the malleable nature of the psycho-social characteristics inherent in thriving. The qualitative aspects of this study allowed for the further exploration of the variation in thriving among those who significantly increased or decreased in thriving across the semester and indicated the importance of spirituality and spiritual development to individual student thriving and success on religiously affiliated campuses.

The number of participating institutions and the timing in which the study was conducted limited this study. A longer period between assessments of thriving may capture more variation than one semester; however the gap in time between thriving assessments also cannot fully explore variation in individual thriving that may occur at significant levels up or down between assessments. This study did not explore the differences in campus articulation of spirituality, faith, or spiritual development, nor did it attempt to explore the features on campus that could have contributed to student spirituality.

This study reinforces the complex nature of thriving among students. The multi-faceted understanding of thriving among the students interviewed for this study also bolsters previous

studies on the complex nature of predicting thriving (Schreiner, McIntosh, Kalinkewicz, & Propst Cuevas, 2014). Further exploration of the relationship between spirituality and thriving among students is warranted.

The findings of this study reinforce the findings of McIntosh's 2012 study that examined the relationships between faculty-student involvement, campus involvement, spirituality, and a psychological sense of community on campus when predicting thriving among students of color. Utilizing structural equation modeling, he found that spirituality was a highly significant pathway to thriving for students of color. Spirituality as a pathway to student success is an underutilized means to bolster success for college students and this study reinforces the important relationship between spirituality and thriving. Further studies on campuses could include specific interventions on faith-based campuses shaped by the culture of the institution, and overt spiritually building interventions on secular campuses that would encourage students to connect meaning and purpose in life with their sense of educational direction and perspective on the world when life is difficult. Further work among students at public institutions, those of non-Christian religious faith, and among those who do not consider reliance in a power greater than themselves something of personal value will help to better understand the complex relationship between spirituality and thriving.

Future studies of thriving on faith-based campuses could benefit from controlled studies of interventions intended to bolster a sense of spirituality. Other existing programs and curriculum on faith-based campuses (e.g., chapel) could be explored to determine if connections exist between students' sense of meaning and purpose and attendance at events and programs often intended to foster spirituality within students.

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Table 1

Demographic Characteristics of Participants (N = 622)

Variable	Total	
	<i>N</i>	%
First Generation		
Yes	122	19.70
No	496	80.30
Gender		
Female	473	77.80
Male	135	22.20
Race		
African American	12	1.93
American Indian / Alaska Native	1	0.16
Asian / Pacific Islander	81	13.02
Caucasian / White	390	62.70
Latino	76	12.22
Multiracial	39	6.27
International Student	1	0.16
Prefer Not to Respond	22	3.54
First Choice		
Yes	369	62.90
No	218	37.10
On Campus		
Yes	477	77.10
No	140	22.60
Class Level		
Freshman	495	80.60
Sophomore	47	7.70
Junior	38	6.20
Senior	24	3.90
Other	10	1.60

Table 2

Simultaneous Hierarchical Multiple Regression Analysis Summary for Student Demographic Characteristics, Initial Levels of Spirituality, Initial Levels of Thriving, Living on Campus, Peer Satisfaction, Faculty Interaction, and Psychological Sense of Community on Subsequent Thriving (N=622)

Variable	<i>B</i>	<i>SE B</i>	β	
Block one: Demographic Characteristics				
Freshman	-0.4	0.32	-0.05	
White	0.21	0.26	0.03	
Female	1.13	0.3	0.16***	
High school GPA	0.27	0.15	0.08	
First choice	0.82	0.26	0.13**	
R ²				0.057***
Adjusted R ²				0.049***
Block two: Spirituality				
Freshman	-0.14	0.3	-0.02	
White	0.12	0.24	0.02	
Female	0.88	0.28	0.12**	
High school GPA	0.12	0.14	0.03	
First choice	0.35	0.25	0.06	
Spirituality	1.16	0.12	0.36***	
R ² change				0.129***
R ²				0.186***
Adjusted R ²				0.177***
Block three: Thriving pretest				
Freshman	0.29	0.2	0.04	
White	-0.18	0.17	-0.03	
Female	0.55	0.19	0.08**	
High school GPA	0.08	0.09	0.02	
First choice	0.14	0.17	0.02	
Spirituality	0.19	0.09	0.06*	
Pretest	0.76	0.03	0.75***	

R ² change				0.434***
R ²				0.62***
Adjusted R ²				0.615***
Block four: On Campus				
Freshman	0.13	0.23	0.02	
White	-0.23	0.17	-0.04	
Female	0.52	0.19	0.07*	
High school GPA	0.07	0.09	0.02	
First choice	0.16	0.17	0.03	
Spirituality	0.19	0.09	0.06*	
Pretest	0.76	0.03	0.75***	
On Campus	0.34	0.21	0.05	
R ² change				0.002
R ²				0.622
Adjusted R ²				0.616
Block five: Peer Satisfaction				
Freshman	0.04	0.21	0.01	
White	-0.16	0.16	-0.03	
Female	0.5	0.18	0.07***	
High school GPA	0.13	0.09	0.04	
First choice	0.12	0.16	0.02	
Spirituality	0.11	0.09	0.04	
Pretest	0.67	0.03	0.66***	
On Campus	0.1	0.21	0.01	
Peer Satisfaction	0.71	0.09	0.22***	
R ² change				0.037***
R ²				0.659***
Adjusted R ²				0.653***
Block six: Student-Faculty Interaction				
Freshman	0.16	0.21	0.02	
White	-0.21	0.16	-0.03	
Female	0.53	0.18	0.07**	
High school GPA	0.14	0.09	0.04	
First choice	0.09	0.16	0.01	
Spirituality	0.11	0.09	0.03	
Pretest	0.64	0.03	0.63***	
On Campus	0.13	0.2	0.02	
Peer Satisfaction	0.59	0.09	0.18***	
Student-Faculty Interaction	0.49	0.09	0.15***	
R ² change				0.017***
R ²				0.676***
Adjusted R ²				0.671***

Block seven: Psychological Sense of Community			
Freshman	0.04	0.2	0.01
White	-0.16	0.15	-0.03
Female	0.56	0.17	0.08**
High school GPA	0.18	0.08	0.05*
First choice	-0.08	0.15	-0.01
Spirituality	-0.03	0.08	-0.01
Pretest	0.6	0.03	0.59***
On Campus	0.09	0.19	0.01
Peer Satisfaction	0.26	0.1	0.08*
Student-Faculty Interaction	0.35	0.09	0.1***
PSC	0.88	0.11	0.25***
R ² change			0.034***
R ²			0.71***
Adjusted R ²			0.704***

***p<.001, **p<.005, *p<.05

Appendix A

Informed Consent

Assessing “Thriving” in College Students: A Sequential, Explanatory Mixed Methods Study

INFORMED CONSENT FORM

Thank you for agreeing to be part of this national study of student success. You have been invited to participate in this study because you responded to two surveys last fall describing how things were going for you on campus. We are interviewing students whose survey responses indicated that there was a change in how they felt from the beginning of the semester to the end. We will ask questions about experiences in the classroom, on campus, or off campus that contributed to how you felt about the semester. Our goal is to better understand the kinds of experiences that impact student success – helping it or hindering it—so that colleges and universities can focus on the experiences that really matter to students.

This interview is being digitally recorded and will take about an hour. I will ask you for a pseudonym and will call you by that name throughout the interview. No one will hear this recording except the researchers and the transcriber; you will have an opportunity to read the transcript and make any corrections, as well. I will do a follow-up interview with you by phone in about 2-3 weeks, and that should only take 15-20 minutes to clarify any questions I have. To thank you for your time, you will receive a \$10 gift card.

The main things you need to know about participating in this study include:

- Your participation is voluntary – so you can stop at any time for any reason.
- This interview should not cause you any discomfort but if it does, let me know—we can skip a question or even discontinue the interview. You can withdraw completely from the study at any time for any reason.
- Your personal information will be kept strictly confidential and will be disclosed only with your permission or as required by law.
- Your identity will be kept strictly confidential by asking you to use a pseudonym through the interview. Only the Principal Investigator (PI) of this study will maintain a Master List of true names and pseudonyms.

This document explains your rights as a research participant. If you have questions regarding your participation in this research study or have any questions about your rights as a research subject, please contact the Principal Investigator using the information at the bottom of this form.

Concerning your rights or treatment as a research participant, you may contact the Research Integrity Officer at Azusa Pacific University (APU) at (626) 812-3034.

Consent: I understand that my participation in this study is entirely voluntary and that I may refuse to participate or withdraw from the study at any time without penalty. I understand the procedures described above, and I understand fully the rights of a potential subject in a research study involving people as subjects. My questions have been answered to my satisfaction. I agree to participate in this study. I have received a copy of this consent form.

I agree to be audio taped

I do not agree to be audio taped

Participant Name Printed

Participant Name Signed

Date

I have explained the research to the subject and answered all of his/her questions. I believe he/she understands the information described in this document and freely consents to participate.

Signature of Principal Investigator

Date

Appendix B

Thriving Student Interview Protocol

1. Tell me a little about yourself and how you came to be at this institution.
2. How did last semester go for you?
 - What experiences do you think shaped the way you feel about how the semester went?
3. Tell me about your academic experiences last semester. Does anything stand out for you that you learned in class last fall?
 - Probe: Think about the best class you had last semester. What was it like? What made it so engaging for you?
 - Probe if they mention the role of the faculty member: Tell me a little more about this instructor. What were some things he/she did that engaged you?
4. What do you think has contributed to your academic success/difficulties? Can you tell me about anything that you think has gotten in the way of that success sometimes? When you encounter difficult courses or assignments, what are some things you do?
5. How often in your classes have you been confronted with ideas different from your own?
 - If none, move on. Otherwise, unpack and ask for an example and how they felt.
6. Tell me a little bit about your relationships with other people—how would you describe those?
7. What relationships have been most important to you in getting the most out of your college experience? Can you give me an example of a time when your relationship with someone made all the difference in you staying in college or being successful?
8. To what extent do you feel a sense of belonging on this campus?
 - What do you think contributes to you feeling that way?
 - If don't feel a sense of belonging: What do you think would help you feel like you belong?
 - How do you feel a sense of belonging in your major or field of study?
9. How involved are you in student organizations on campus or off campus?
 - If not involved: Are there student organizations you would like to join? What has kept you from getting involved in organizations?
 - If involved: What has been your role in these organizations? What has motivated you to get involved in these organizations?
10. When you think about the support systems that have been helpful to you as a college student, what comes to mind? Who or what has helped you get the most out of college?
11. Have you EVER had a time in your life when you felt like you were doing something that made a difference in the world or in someone else's life? Did you have any of those kinds of experiences this past fall? What role do you think those kinds of experiences play in how you feel about yourself or in how you felt about the semester?
12. How much interaction do you usually have with people from different backgrounds than your own? What is that like for you? What do you think are the pros and cons of being around people who are different than you?
13. How would you describe your outlook on life?
14. What energizes you?

- What energizes you about your chosen area of study?
15. Tell me about an experience this year that has been the most meaningful to you.
 - What motivated you to take part in this experience?
 - What energized you about this specific activity?
 16. What is the most difficult problem you have experienced this year?
 - Can you describe one of those times for me and how you coped with it?
 - To what extent, if any, have your spiritual or religious beliefs contributed to your ability to cope with difficult times? In what way?
 17. If you could wave a magic wand and change one thing about last semester, what would it be?
 18. Thriving is being academically, socially, and psychologically engaged so that you are enjoying the college experience and succeeding. To what extent do you think you are thriving *this* semester? (Show them the 6-point scale on an index card.) What experiences do you think are contributing to that right now?
 19. If you were to give advice to the faculty and administrators of this university as to what they could do that would make the biggest difference in students' ability to get the most out of their college experience here, what would you say?
 20. Is there anything else you would like to add?

Appendix C

Table 1: Summary of Participant Demographic Information

Pseudonym	Gender	Race/Ethnicity	Major	Class Level
Gene Augustine	M	African-American	Nursing	Sophomore
Elizabeth	F	Caucasian	Nursing	Senior
Valeria	F	Latina	Accounting	Junior
Mansi	F	Asian	Biology	Junior
Renee	F	Caucasian	History	Sophomore
Tina	F	Latina	Chemistry	Senior
Susan	F	Caucasian	Nursing	First-Year
Helen	F	Latina	Biology	First-Year
Peter	M	Caucasian	Undecided	First-Year
Natasha	F	Caucasian	Undecided	First-Year
Mary	F	Caucasian	Biology	First-Year
Jenna	F	Caucasian	Global Studies	First-Year
Kevin	M	Caucasian	Politics, Philosophy, & Economics	Junior
Stacey	F	Multiethnic	Politics, Philosophy, & Economics	Junior
Steve	M	Multiethnic	Politics, Philosophy, & Economics	First-Year
Becky	F	Caucasian	Media, Culture, & the Arts	Junior
Kyle	F	Multiethnic	Finance	Sophomore
Abby	F	Caucasian	Pediatric Health & Motor Development	Sophomore
Brooke	F	Caucasian	Political Science	Sophomore
Jane	F	Caucasian	Psychology	Sophomore
Marie	F	Caucasian	Pre-med/Psychology	Sophomore
Joe	M	Caucasian	Behavioral Science	Senior
Summer	F	Caucasian	Behavioral Science	Senior