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Retention & Graduation Rates from Participation in Short-Term Study Abroad Programs at
Small Private Liberal Arts Institutions in the United States of America

Master's Thesis

By

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Abstract: Over the past several decades, the number of students participating in international academic programming has increased drastically, having quintupled in from the early 1990s to 2017. Many of these students have participated in increasingly popular short-term programming models where students spend less than eight weeks in an international location doing academic coursework. Considerable research exists tying the participation in study abroad experiences to positive institutional and academic outcomes such as increased institutional retention and academic performance. Underrepresented in this literature is the impact these experiences have on smaller institutions, such as private liberal arts colleges, which are increasingly looking for ways to diversify themselves in a crowded educational marketplace. Using the case study of Moon Crest College, this quantitative study uses statistical and regression analysis to determine if participation in short-term study abroad experiences have a relationship with institutional retention and time-to-degree. This analysis finds at Moon Crest College a statistically significant relationship between participation in short-term study abroad experiences and graduating from the institution. This study found no clear relationship between participation in these experiences and time-to-degree rates at Moon Crest College.

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List of Abbreviations

GPA	Grade Point Average
HBCU	Historically Black Colleges and Universities
HEI.....	Higher Education Institution
STSA.....	Short-Term Study Abroad
TTD.....	Time-to-Degree

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Dedication

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Chapter 1: Introduction

Introduction to Study

In the 2017 – 2018 academic year, 341,751 students from the United States traveled internationally for temporary academic study, setting a record in the number of students participating and outbound programming and signifying the growing popularity of international education experiences (Martel et al., 2019, p. 71). Since the 1989-1990 academic year, the number of students' participation in these programs has quintupled, resulting in internationalization becoming a crucial part of numerous institutional missions and the subsequent expansion of global opportunities (Martel et al., 2019, p. 71, Vande Berg et al., 2012). Additionally, participating students have returned with positive feedback, stating that they feel "transformed" or that these experiences have, in one way or another, "changed their life" (Vande Berg et al., 2012, pp. 3-4).

As more students continue to participate in these programs, questions regarding the contributions that these experiences provide and the measureable personal, professional, and academic outcomes that result from participation have been raised by researchers (Young, 2007, Vande Berg et al., 2012, p. 7; Xu et al., 2013). Current research has documented student benefits associated with international experiences, including positive learning outcomes, higher degree attainment, and increased intercultural competence and cross-cultural communication skills (Engel, 2017; Hoff & Paige, 2008). In investigating these learning outcomes, the question has also emerged about if international education experiences can be utilized as a retention tool and if any specific part of the experience can be attributed to a student's persistence to graduation (Metzger, 2006).

Most of the research conducted on this topic looks specifically at the positive relationship between student participation and graduation rates, which has shown a positive association between study abroad participation and persistence to graduation (Engel, 2017). Studies conducted by Colorado State University and the University of Dallas showed a positive impact on 4- and 6-year graduation rates, noting that students who participated in study abroad programs were more likely to persist to graduation than those students that did not participate (Colorado State University, 2017; Metzger, 2006; Young, 2007). Further examination of these studies note several positive associations with the experience, including increased GPAs and a higher sense of self- and socio-cultural awareness (Colorado State University, 2017; Metzger, 2006).

Despite the positive research association, there are still narratives that minimize the impact that education abroad experiences have on student learning outcomes and TTD. As detailed by Xu et al. (2013), "one of the top concerns about or perceived obstacles of studying abroad is whether studying abroad will delay graduation, especially if such programs are taken early in a student's college life" (p. 90). Xu et al. (2013) found that 46% of their students reported such fears entering the study abroad process, potentially deterring them from participating in these programs (p. 90). Furthermore, many institutions have restrictions regarding who can participate in these experiences, including minimum GPA thresholds and clean academic and disciplinary profiles, thus excluding those students who may benefit the most from these experiences (Wielkiewicz & Tirkowski, 2010, p. 662).

Current literature examining this topic has looked at this relationship at larger institutions and statewide systems. One example is O'Rear et al.'s (2012) GLOSSARI study at the University of Georgia system, one of the most comprehensive studies in current literature that looks at outcomes from participation in study abroad experiences. Other studies such as

Malmgren and Gavin (2008) and Vande Berg et al. (2009) complement these extensive institutional studies that provide the basis for many currently accepted outcomes of education abroad participation, such as increased academic performance or increased graduation rates. While this research is foundational in understanding the impacts of study abroad participation on HEIs, there is a lack of representation of smaller school studies in this body of research, notably smaller private liberal arts institutions that have historically served as one of the many backbones of the American higher education system (Thelin, 2019, p. 90). These institutions' long interconnected histories to greater American society and greater autonomy serve as a critical difference between their public counterparts (Thelin, 2019, p. 291). In addition to these differing characteristics, these institutions also have diverse student populations and academic offerings that can differ significantly from their larger counterparts and have different resources to support their constituents (Astin, 1999; Holt, 2019).

Furthermore, while the benefits of international education experiences are well documented, much of the research examining the outcomes of STSA experiences regarding institutional retention and graduation is embedded within these large institutional settings. Barclay-Hamir's (2011) dissertation looked extensively at the positive relationships between participation in all lengths of study abroad experiences and is equally as foundational to this field of study. While these studies are beneficial in understanding the benefits of overall participation, given the increasing prevalence of participating in STSA programming as described in Martel et al. (2019), additional research is warranted to see if the benefits of participating in study abroad are sustained for shorter periods. Furthermore, as international educational experiences and other forms of experiential learning become more popular, the representation of smaller institutions in this research is essential to understanding the impacts of study abroad on institutions.

This thesis project will investigate whether a quantitative relationship exists between student retention at small HEIs and participation in STSA programming. This study seeks to build on Xu et al.'s (2013) statement that limited quantitative studies have examined the relationship between outbound educational programming participation and persistence to graduation due to involvement in STSA programming, rationalizing additional exploration of this topic (p. 92). It is anticipated that this project will contribute to the current body of research regarding student retention and education abroad, provide additional quantitative analysis into the relationship between these two variables, and provide representation in this research for smaller HEIs in the further study into this topic. This study could be invaluable to helping smaller HEIs in their decision-making, demonstrating the impact of STSA programming and how potentially STSA could be used as a retention tool for institutions considering expanding these opportunities.

Organization of Thesis

The organization of this thesis will be as follows. The current chapter of this thesis is the introduction, serving as an overview of this project and justification for further investigation into this topic. Chapter 2 will serve as the literature review, examining the current research regarding academic and institutional outcomes resulting from participation in study abroad experiences, current studies regarding short-term programming, and existing information about international programming at smaller institutions. Chapter 3 will explain the research questions and quantitative methodology used in this thesis and discuss the variables used in this study, limitations, and ethical considerations. Chapter 4 will discuss the study's results and findings, examining how they relate to the proposed research questions and comparing them to existing research discussed in Chapter 2. Chapter 5 will be the final chapter, reviewing the findings of

this thesis, discussing the implications of this research, and proposing opportunities for future researchers to build on this study.

Chapter 2: Literature Review

This chapter details the current research and literature relating to student academic outcomes from participation in international programming in the United States of America. This chapter will start with an overview of the current relationship between participation in study abroad experiences and retention by measuring graduation rates, followed by academic outcomes from participation in education abroad experiences. This chapter will continue overviews of the relationship between study abroad programming and different demographics of students, overviews of the current relationship and challenges associated with participation. The focus will then shift to recent research regarding STSA experiences and the current research in the field relating to that specific type of programming. This chapter will conclude with an overview of small, private liberal arts colleges in the United States and an overview of international initiatives at these institutions.

Graduation and Study Abroad Participation

As previously stated in Chapter 1, substantial research conducted on the relationship between graduation rates and study abroad participation shows that students who have participated in study abroad experiences will persist to graduation at a higher rate than those who do not (Metzger, 2006; Colorado State University, 2017; Malmgren & Galvin, 2008; Xu et al., 2013; Young, 2008; Student Research and Information, 2009; University Planning, Institutional Research, and Accountability, 2009; O'Rear et al., 2012; Willet et al., 2013; Bell & Glass, 2019; Barclay-Hamir, 2011). Institutions that promote and invest in international education crown participation in study abroad experiences as a means of student personal, professional, and academic growth while simultaneously reaping the benefits these students provide to their institutions upon return. An increase in student retention, increased academic performance,

linguistic skills development, and increased cross-cultural skills development all are positive metrics that encourage institutions to promote study abroad participation.

The current literature examining this topic supports the idea that students are more likely to persist to graduation than those that don't. Research conducted by the Colorado State University's Office of Institutional Research (2017) showed that an examination of their first-year students from 2009 to 2012 showed "Graduation rates [were] higher for students with education abroad experiences compared to students without education abroad experiences" (p. 2). Additionally, research conducted at the University of Minnesota Twin Cities found "the differences in graduation rates between two groups, those with and without study abroad experiences, were statistically significant. Study abroad participants overall had higher graduation rates" (Malmgren & Galvin, 2008, p. 40). Furthermore, in the research at Old Dominion University, regression analysis found a statistically significant correlation between study abroad participation and 5-year and 6-year graduation rates (Xu et al., 2013, p. 95). The literature mentioned above showcases a correlation between a student's ability to successfully graduate from an institution through participation in a study abroad experience.

While much of the research notes the correlation, there is inconsistency regarding how much impact participation has on students successfully persisting to graduation. These inconsistencies are further compounded by a narrative that students may delay their graduation due to participation in study abroad experiences (Wielkiewicz & Tirkowski, 2010, p. 662). Xu et al. (2013) state that:

...one of the top concerns about or perceived obstacles to studying abroad is whether studying abroad will delay graduation, especially if such programs are undertaken early in a student's college life. Research studies reveal that up to 46% of all students (more

male than female) feared that participation in (studying) abroad might delay their graduation (p. 90).

Ingraham and Peterson (2004) echo these concerns in their study. Their research at Michigan State University found in the study of their population that students who participated in study abroad experiences ended up enrolling in more terms of study than non-participants during their undergraduate academic careers (Ingraham and Peterson, 2004, p. 92). Ingraham and Peterson (2004) consider that those students enrolling in more academic terms may not necessarily be a setback in their degree program but rather an extension of their program of study due to studying abroad (p. 98). This consideration of a longer TTD is also supported by Colorado State University (2017) research, which stated in their study that "there was some suggestion that students who earn a degree take longer to do so if they had an education abroad experience compared to those with no education abroad experience" (p. 2).

Despite the narrative presented above, literature investigating this topic consensus that participation in study abroad programming leads to faster graduation rates, even if those rates are inconsistent across different studies. Young's (2007) study at the University of Dallas noted a 28% increase in the 4-year graduation rate for study abroad students than the control group of non-participants (p. 107). Conversely, a survey conducted by the University of California San Diego examining their 2002 first-year class saw an increase of 12% in their 4-year graduation rate and a 16% increase compared to their 6-year graduation rate (Student Research and Information, 2009). Malmgren and Galvin (2008) found the classes they investigated had a difference between 15% and 36%, looking at their 4, 5, and 6-year graduation rates compared to their control group for the respective years (p. 34). While the improvement rates and variances in TTD vary from one study to another, it's clear from the current literature that students who

participate in study abroad experiences persist to graduation at higher rates and graduate in a timelier manner than students who don't. Barclay-Hamir (2011) summarizes this research most effectively in stating that student participation in a study abroad experience "increased degree completion rates regardless of the type or length of [the] program in which the students participated [in]" (p. 179).

Academic Outcomes From Participation in Study Abroad Experiences

In addition to degree completion, there is significant research that shows the correlation between increases in academic and linguistic performance and commitment as the result of participation in study abroad (Sutton and Rubin, 2010; University Planning, Institutional Research, and Accountability, 2009; Willet et al., 2013; Xu et al., 2013, Bell & Glass, 2019, Stebleton et al., 2019, Dwyer & Peterson, 2004). Willett et al. (2013) summarize these academic gains stating that in their research, "studying abroad.... influences academic success while also confirming the importance of student engagement for learning." While there is some variation in student demographics, program length, and course load in studies, there is consensus among researchers that studying abroad improves academic performance in institutional settings post-experience.

While some academic performance indicators can be challenging to quantify due to variability in discipline and assessment, many researchers have used GPAs to draw conclusions in their research. More specifically, research that has examined GPA improvement has used before and after experience models to assess progress. Sutton and Rubin (2010), in their final report on the University of Georgia System, concluded that participation in study abroad experiences increased the mean GPA of their sample on average by 0.06 points (Slide 56). Willet

et al. (2013), in their research of community college students, found that adjusted for variables, study abroad students had a transferrable GPA of 0.18 points higher than their peers that did not study abroad. In their research at Old Dominion University, Xu et al. (2013) also found that students who studied abroad had higher GPAs and credits accumulated than their peer students who elected not to study overseas (p. 93). Combined, these studies conclude that students who participate in study abroad experiences have higher GPAs than those who do not.

Beyond looking at grades, researchers have also examined linguistic/foreign language skills development and interest resulting from studying abroad participation. Common knowledge would suggest that being in a different cultural context with a foreign language would be ideal for developing second-language acquisition. By studying and using a language in its native environment, a student would naturally receive a more profound experience than if they were not. Current studies, like GPAs, have used pre-and-post testing models to measure gains and several linguistic measurement tools to quantify gains. Stebelton et al. (2013) found a statistically significant relationship in their studies regarding participation in study abroad and student development in linguistic and cultural competency, with women showing more significant language/cultural gains than men (pp. 12 - 13). Vande Berg et al. (2009) found in their research at Georgetown University that students who participated in study abroad programs had more significant gains in oral language proficiency than those who studied languages at their home institution, citing exposure to languages in their native environment as an important variable (p. 16). In their survey, Dwyer and Peters (2004) found that 83%-90% of past study abroad participants reinforced their commitment to studying a foreign language following their experience abroad. Dwyer and Peters (2004) found the most significant commitment and persistence to learning a language among those who participated in homestay experiences

compared to other housing arrangements, with 42% of respondents responding that they use a language other than English regularly.

Despite some of the measurable gains seen in academic and linguistic performance, there is contradicting research and questions surrounding these topics that support opposing points of view about academic gains. A common criticism of measuring academic success by GPA, as described by Boyle (2014), is it "[fails] to display intelligence, capability, or mastery of [the] material" and does not acknowledge outside influences on academic performance. This concept considers whether GPA is a strong indicator of academic achievement and whether students who perform more substantially academically following their abroad experience actually learn tangible skills or simply perform stronger on examinations. Savicki (2011) questions the similar assumptions made about linguistic gains, stating that "language proficiency [is] complex and not comprehensively measured (p. 76). While the measurement tools used to measure language, skillsets vary from one instrument to another, it lacks clarity in determining when a student has passed a threshold of intercultural and linguistic competence (p. 76).

While improved academic performance is documented in the research, there is an additional question of whether the academic gains seen from study abroad students result from those students being already academically strong students. Xu et al. (2013) state that "a legitimate and important research question is whether the better academic performance of...study abroad students... is related to studying abroad or simply an impact of demographics and better academic achievement before studying abroad" (p. 93). This argument is further complicated by the addition of race, class, ability, socioeconomic status, and low-GPA students who otherwise don't have the financial, academic, physical, or time commitments to participate in these experiences. This consideration begs the question of if statistics on information are

skewed surrounding this topic and potentially reflect those students who can participate in these experiences and restrict those who may not have the means or benefit the most from a study abroad experience.

Sutton and Rubin (2004) contest this argument, stating in their research that “differences between those who have participated in study abroad and those who have not are simply due to the elite academic status of those who typically choose to study abroad” and that the differences between these groups were more an issue of a student’s own motivation (p. 74). Incorporating their quantitative modeling, Sutton and Rubin (2004) stated that

[Our] analysis supports the view that the differences found due to studying abroad were indeed true differences and not confounding artifacts of pre-existing group inequalities in levels of academic achievement. It indicates that the impact of studying abroad on learning outcome is robust and not confounded with the typically higher GPAs held by students who choose to go overseas to study (p. 74).

While there is some debate about the strength of students, overall, there is consensus in the literature that academic gains can be seen with participation in education abroad experiences. Common knowledge would suggest that any students who have increased performance in an educational setting, external factors not considered, would likely see that continued post-experience and enhance their academic profile. Academic improvement and persistence to graduation are not linear, and several other external factors impact these outcomes. Peltier et al. (1999) discuss that persistence to degree attainment is complex, with several demographic factors influencing one's participation ability. The next section of this chapter will review some of the demographic characteristics that impact study abroad participation

Demographic Factors and Study Abroad

In general, student participation in international experiences is credited with several positive student outcomes that contribute to their academic development during their study. It's essential to distinguish in examining this relationship that many demographic factors influence this. Metzger (2006) was one of the first published education professionals to explore the relationship between student retention and participation in outbound international programming, basing their theoretical framework on Tinto's theory on student retention (p. 165). Metzger (2006) states that the problem with student retention and study abroad is subjective; there are several academic, personal, environmental, cultural, and ethical reasons for student persistence and why a student may choose not to study abroad or persist to graduation. These reasons may help explain why a student may or may not retain to an institution and persist to graduate regardless of participation in study abroad.

In their passage, Brimmer (2018) mentions the current issues regarding demographic trends in study abroad experiences and the importance of creating inclusivity. In this field of study, it's accepted that white women dominate the demographic population of study abroad participants and higher education (Lucas, 2018; Reeves & Smith, 2018). Lucas (2018), in the discussion of the underrepresentation of men in education abroad, notes that a lack of diverse perspectives in these experiences “creates isolating environments” and “[poses] the same pedagogical and climate challenges as any educational program lacking diversity.” Several initiatives have attempted to broaden the circle of participation (Brimmer, 2018). Initiatives such as IIE Generation Study Abroad and financial opportunities such as the Benjamin A Gilman International Scholarship seek to eliminate barriers that would hinder participation in international education experiences (IIE Generation Study Abroad, n.d.; Benjamin A Gilman

International Scholarship, n.d.). These initiatives are vital for underrepresented students within these experiences, who otherwise may not have the means to participate. Peltier et al. (1999) discuss that there already exist several complex factors that influence student study abroad participation and student retention, "including student involvement, ethnicity, gender, and age" (p. 370). This consideration is essential to note, as the effects of participation in a study abroad experience may differ depending on a student's background.

Many studies investigating outcomes of study abroad also divided their samples by gender, ethnicity, and religion to further understand discrepancies between population groups (Metzger, 2006; Colorado State University, 2017; Malmgren & Galvin, 2008; Xu et al., 2013; Young, 2007). While a positive association exists between all groups studied in their respective populations, a few noted a notable positive association with underrepresented students who may not have the means or motivation to participate (Engel, 2011; Xu et al., 2013; Colorado State University, 2017). Colorado State University (2017) pointed out in their research that minority students that participated in study abroad were "disproportionally positively impacted" by persistence to graduation, including Black, Latino, Asian, and first-generation students, reinforcing the need to broaden access to these experiences (p. 11). This impact can be witnessed in the academic gains of underrepresented populations because of participation in study abroad experiences. Bell and Glass (2015), in their research of Pell Grant recipients that studied abroad, found that white and Hispanic Pell Grant recipients had higher post-graduation GPAs while Asian/Pacific Islander and Black/African Americans had neutral or negative GPA differences (p. 184). Bell and Glass (2015) also found that female Pell Grant students increased their GPA by .03 points while male Pell Grant students, on average, had their GPA decrease by 0.02 points (p. 184).

Despite the work that has been accomplished to decrease barriers and documentation of positive impacts, minority populations are disproportionately underrepresented in study abroad experiences. Despite evidence that students enter higher education with an equal desire to pursue international opportunities, the ability of a student to act on those interests changes drastically once enrolled (McGee et al., 2018). The Carnegie Research Universities states in the National Survey for Student Interest in 2006 that 32% of first-year students had planned on studying abroad, yet by the time the 2010 survey was taken, only 13% of seniors had reported doing so (Xu et al., 2013, p. 95). This evidence represents a significant gap between interest and participation, and scholars have sought to understand it further. Cole (1991) describes the four main barriers that prevent minority students from participating in experiences known as the four F's: Faculty and Staff, Finances, Family and Community, and Fears. While Cole's (1991) model is directed toward barriers for students of color, it can also be applied to an institutional setting in understanding many of the issues that discourage or prevent students from participating in study abroad experiences.

For Faculty and staff, Cole (1991) refers to the many administrative barriers/biases that institutions have regarding education abroad experiences. Cole (1991) describes that faculty only encourage their best students to participate in special programs, such as international programming, which many faculty do not see minority students as. This point is supported by McGee et al. (2018) as well, who points out that "the U.S.'s contentious and significant history of systemic discrimination and marginalization of racial and ethnic minority groups, which persists today," and preferential treatment is a significant factor in why participation is limited in abroad experiences (p. 21). Interis et al. (2018) also mention that ineffective marketing strategies and lack of communication about opportunities from an administrative side limit an HEI's

institutional and cultural knowledge about international programming. Furthermore, many faculty, particularly at HBCUs and other resources strained institutions, do have the resources to develop and operate study abroad programming; hence these experiences are viewed as a "luxury" that faculty cannot make room to accommodate for in their professional lives (Cole, 1991, p. 13). This includes smaller, financially strained institutions that otherwise struggle to keep their doors open by discounting their tuition and may not have the means to effectively implement international initiatives (Holt, 2019). These administrative failures help to illustrate some of the systemic issues that students face when it comes to participation in study abroad experiences.

The second factor mentioned in Cole (1991) is finances, considering both the perceived and tangible barriers to participation. It is common knowledge that higher education in the United States is an expensive investment and is particularly burdensome for students who do not come from wealthy backgrounds. While federal financial aid opportunities and scholarship opportunities help alleviate some of the stresses of funding higher education, low-income students still perceive that studying abroad is an expensive experience (McGee et al., 2018, p. 25). While scholarships and other forms of aid exist, many of these opportunities are highly competitive or have specific eligibility requirements that limit these awards to only the highly motivated. For example, the Benjamin A. Gilman Award is only eligible for U.S citizens who are Pell Grant recipients (Benjamin A. Gilman Scholarship, n.d.). While this is beneficial for these eligible students who receive this award, it does stratify students who are not qualified yet financially needy from receiving these awards. Furthermore, economically disadvantaged students or those in a low socioeconomic class typically have additional work responsibilities to finance their education (Interis et al., 2018). This demographic includes older/non-traditional,

who usually have families, jobs, and other complex barriers that they must consider absent from the study abroad experience to maintain enrollment. Obligations to work to finance their education serve as a tremendous deterrent to why students may not consider studying abroad during their educational careers (Interis et al., 2018).

The final two factors mentioned in Cole (1991) impact this is family and fear, which share many of the same justifications, only from different perspectives. Families of students who go abroad ask many similar questions regarding the safety and security of the experience and the well-being of the students while abroad. Questions regarding room and board accommodations and logistics are commonplace in any international experience yet can be compounded for underrepresented students who must consider racial attitudes and discrimination, thus creating an additional barrier for students to participate in these experiences (Cole, 1991; McGee, 2018). A student's previous experiences also influence the perception of an education abroad experience. Metzger (2006) explores this idea in their research, stating that current "research suggests that minority students are less internationally oriented and less confident in their ability to adapt to foreign cultures," hence a hesitancy to participate in these experiences (p. 167). As stated by McGee et al. (2018), this lack of exposure or cultural and social capital plays a significant role in being either a benign or counter-factor in a student's interest in education abroad and may produce some of the fear mentioned by Cole (1999).

Considering the above reasons, the advent of STSA programming would seem like a metaphorical silver bullet. Rowan-Kenyon and Neihaus (2011) state that "... these short-term experiences may encourage some students originally unwilling to take the risk of a longer study abroad to experience to explore other opportunities after gaining confidence in themselves and their ability to travel" (p. 225). An academically focused international program that is shorter in

length and lowers in cost would seem like a good middle ground between balancing many of these concerns addressed above. However, the differences in programmatic length and the focus differ from their middle-to-longer term counterparts and are essential to recognize in the context of this project. The current literature regarding STSA in the United States will detail some of these considerations in the next section of this chapter.

Short-Term Study Abroad Programming

Before discussing some of the current literature on STSA experiences, it's essential to understand the current trends within U.S. education abroad and how STSA fits in this market. In the 2018-2019 academic year, an estimated 347,099 students elected to study abroad, more than triple the number of students compared to the 1994-1995 academic year (Martel et al., 2019). Despite the increase in overall participation, students' participation in international experiences relative to the total population in U.S higher education remains low, with roughly 10% of American undergraduates electing to study abroad during their educational careers (Intrisi et al., 2018, Martel et al., 2019). Increasingly, these students have been choosing STSA options as institutions have created more opportunities for this type of program. In the words of Interis et al. (2018),

As globalization causes our world to become ever more interconnected, colleges and universities (feel) the urgency to prepare students for a world in which they are likely to interact and work with people from multiple backgrounds, with different values and belief systems, cultural norms, and habits (p. 1919).

In the 2018/2019 academic year, Martel et al. (2019) reported that 64.9% of all mobile students from the U.S participated in STSA programming, nearly a ten-point increase from the 2008/2009 academic year, where 54.6% of students participated in STSA programming (Chow & Bhandari,

2010, p. 50). This increase can be attributed to greater interest in international issues, curricular integration, and more inclusive practices that make these experiences available to students who otherwise would not participate in these experiences because of fiscal, academic, or time constraints (Lewis & Niesenbaum, 2005, Donnelly-Smith, 2009). Furthermore, the prevalence of STSA programming allows institutions to create more diverse and flexible offerings in terms of the location and course material of the experience, diversifying their international profiles and appealing to a broader institutional audience (Interis et al., 2018, p. 1921). Overall, the increase in market demand and prevalence within institutional settings has encouraged this program's participation and growth.

What STSA programming is, though, is highly subjective, depending on the institution. Donnelly-Smith (2009) agrees that there's a universal consensus that institutions define STSA as any program that is less than a semester or quarter. Still, within that category, there's significant variation in what one HEI would consider a short-term program that another HEI might not. While Martel et al. (2019) at the Institute of International Education defines STSA programming as any program that is 8-weeks or less, Donnelly-Smith (2009) emphasizes that not every institution will refer to all their programming within this model. Programmatic examples range from week-long programs conducted over intra-term breaks to more extended programs over the summer that are complex in academic nature and potentially connect back to work completed in other courses (Donnelly-Smith, 2009). Because of this variation in definition and program types, it's challenging to make a simple definition for the term "short-term" when it comes to international programming.

Historically, many institutions relied on the summer and spring break periods to run STSA programming. As institutions have continued to develop, some institutions have

incorporated defined periods of short-term study included within their academic year, such as an institutionally integrated January Term or Maymester (Donnelly-Smith, 2009). While there are defined experiential/fast-track classes offered at the institution in these periods, many of these defined short-term periods have intentionally included study abroad to enhance the overall educational experience and increase student academic engagement (Donnelly-Smith, 2009). These short-term periods of study are variable in their institutional investment, with some institutions placing an enormous amount of resources towards its implementation and support, while other institutions place very little (Donnelly-Smith, 2009). This variation in investment has led to quite a bit of diversity in the design, length, and location of short-term programming since there is significant variation in the administration, purpose, and implementation of these programs (Donnelly-Smith, 2009; Interis et al., 2018).

Much of the research conducted regarding STSA is niche and has been and is specific only to the programmatic impacts of a topic, such as language acquisition or cross-cultural skills development (Schenker, 2019, p. 140). Schenker's (2019) study examined the effects of an eight-week STSA program in Germany on students' global competence, while McComb et al. (2019) examined the administration, pedagogy, and implementation of student outcomes as part of an STSA program. It's important to note the diversity of these projects and that the researched topics can range within their respective academic discipline. Mendelson (2004) compared student perceptions of language acquisition through a four-week program in Granada, Spain, versus a 12-week program in Salamanca, Spain. The conclusions of these projects are supplemented by research that has compared the impacts of coursework done within a short-term study period versus a traditional study period, such as a semester or full academic year (DeLoach et al., 2021).

Traditionally, research has sought to remove some of the vagueness regarding outcomes of STSA programming by comparing it to its easiest counterpart, the historically more popular and well-researched "junior semester/year abroad." Conventional wisdom regarding programmatic duration suggests that longer is better and that students are more likely to gain more of the benefits of a more comprehensive study abroad experience than a shorter one (Dwyer, 2004). There seems to be some debate about whether extended periods of study are comparable to or better than shorter experiences. Hamad and Lee (2013) found in their study looking at intercultural competence and duration of the program found that there was no correlation between the length of time a student was abroad and their assumption of cultural adaption (p. 670). Other studies, such as Gaia's (2015) study on intercultural competence in STSA programming, found that "embedded short-term, faculty-led study abroad programs...enhanced participants' understanding and awareness about other cultures and languages, as well as the impact of other cultures on the rest of the world" (pp. 26-27). DeLoach et al. (2021) state in their research as well that in some aspects of their study "shorter programs had similar impacts on students as longer programs, provided that they had sufficient depth" (p. 15). While there is a plethora of current literature that reaffirms positive outcomes of longer-term experiences, these studies suggest that STSA is equally as beneficial in achieving many of the goals of traditional semester/academic year programming

Overall, there's consensus that participation in international programming is beneficial for achieving the academic and programmatic elements of a study abroad experience. Despite these benefits, there is a considerable gap in the literature on the institutional structures STSA program and whether its presence within a smaller institutional setting impacts these programmatic and

student outcomes. The next section of this chapter discusses the current literature on smaller institutions and international education.

Liberal Arts Colleges in American Higher Education and Study Abroad

The United States of America is fortunate to be home to several diverse institutions in scope, size, and place within its higher education system. Less often mentioned in the ideal picture of American higher education are the smaller schools, in this instance, private liberal arts schools, that help cement its foundation. While these institutions are varied in terms of available resources and scope of institutional mission, the one thing they share is an emphasis on the person and the scholar being educated at these types of institutions (Birnbaum, 1988). These institutions emphasize community, loyalty, and a shared sense of institutional character as described by the community members and are reinforced by the students that attend (Birnbaum, 1988, p. 90).

From a categorical standpoint, The Carnegie Classification of Institutions (n.d.) has two specific definitions for what constitutes a small school in American higher education: 2-year institutions are considered small when their full-time enrollment (FTE) is between 500 – 1,999 students, and 4-year institutions are considered small when their FTE is between 1,000 and 2,999 students. Four-year institutions are also classified by residency status, with non-residential institutions having fewer than a quarter of their students living on-campus. In contrast, residential institutions have more than half of their students living on campus, and partially residential institutions make up less than half (The Carnegie Classification of Institutions, n.d). In their history, place, and purpose, these institutions represent a diverse subset of higher education's offerings that help serve the American economic industry.

In this subset of small institutions are liberal arts colleges, which in the words of Astin (1999), are primarily undergraduate institutions that "produce a pattern of consistently positive student outcomes not found in any other type of American higher education institution" (p. 77). These smaller institutions have a careful balance between their educational offerings and scholarly research and emphasize institutional mission and teaching among all other institutional functions (Astin, 1999; Beneman, 1990). Robert Birnbaum (1988) refers to many of these institutions in his description of organizational structure as "collegial institutions." These schools offer a wide range of degrees in the arts and sciences, emphasize small classes, and are grounded in a robust general education curriculum that serves as the institutional foundation (Birnbaum, 1998). For the most part, power distance in administration is limited among student and academic members, and community building, and a sense of egalitarianism are valued highly above other morals (Birnbaum, 1998). Overall, these institutions' small size helps them excel in community building and interpersonal learning environments that otherwise would not be possible in more extensive institutional settings due to the size and scope of those schools (Beneman, 1990).

Schudde and Goldrick-Rab (2016) broadly classify these institutions as part of American higher education's private, non-profit sector, but some critical characteristics distinguish these institutions within this category. Much of the current literature surrounding American liberal arts colleges break down these schools into two broad categories, "selective" and "non-selective." Selective liberal arts colleges have higher admissions standards and are characterized by their motivated student bodies, large endowments, higher faculty salaries, more substantial levels of academic rigor, and perceived institutional quality (Braxton & Nordvall, 1985). Non-selective institutions carry much of the same characteristics as their more selective counterparts but are

significantly more resource-constrained and don't have the luxury of established institutional branding (Schudde & Goldrick-Rab, 2016). As tuition-dependent institutions, many of these less selective liberal arts schools struggle to maintain their status in a crowded educational market and resort to methods such as tuition discounting to maintain sustainable enrollments and keep doors open (Holt, 2019).

The discrepancy between selective and non-selective institutions impacts how international programming operates within these institutions. Nelson (1995) discusses that study abroad is a function of the institution: that study abroad or outbound programming serves as a function of the overall international initiatives and internationalization plan those institutions adopt (p. 77). From an administrative standpoint, there's quite a bit of diversity when it comes to the organization of study abroad offices: some offices may report cooperatively to both student and academic affairs, others have direct lines to an academic dean and are separate functions of an institution (Nelson, 1995, pp. 80-81). Other institutions may have their study abroad offices connected to their international student offices, where universities see them as "two sides of the same coin" represented in the same department (Nelson, 1995, p. 80). The roles of these offices are also drastically unique depending on the institution, and that institutional context is essential to understanding the function of education abroad within the institution and how it fits into their academic plan (Walker, 1995).

While there is little in the literature about the functionality of study abroad offices at specifically liberal arts colleges, information about how these departments are funded and operate does exist. Whalen (2008) states that study abroad offices are funded primarily through an institutional resource and any related study abroad program fees (p. 15). These budgets are also supplemented "by other student fees paid by every student at the institution, restricted

endowments, and cost-sharing [practices] provided by program providers” (p. 15). Many smaller institutions with fewer resources to share with international mobility offices rely on external funding and grants to fund operations and function (Redden, 2019). For example, Shepherd University in West Virginia received a grant of \$50,000 to help establish a study abroad office in 2016 and make it an initiative to include it within possible campus activities (Redden, 2019). Another example is Santa Fe College in Florida used a 2017 grant to develop an internship program in partnership with State University in Brazil (Redden, 2019). This institutional investment determines the support for students participating in outbound programming and the structure of the financial systems that students use to fund these initiatives (Redden, 2019; Whalen, 2008).

In addition to finances for supporting international initiatives, staffing and human resources for global initiatives also vary. While some institutions may keep their external programming initiatives in one singular office, many institutions may have representatives across the university that help support international initiatives (Nelson, 1995). The size and scope of how these offices are staffed and operate, much like the administrative structure, is incredibly contextual to the institution (Nelson, 1995; Walker, 1999). The Forum on Education Abroad (2018), in their "State of the Field" (2017) publication, noted that, on average, U.S based offices have six full-time staff members employed within their offices at any given point (p. 12). Offices are typically supplemented by two part-time workers, four student workers, and six unpaid staff or volunteers (The Forum on Education Abroad, 2018, p. 12). Common knowledge would suggest that smaller institutions within the United States would have more responsibilities compounded into their office duties and less staffing to support international initiatives, but this would be dependent on specific institutional investment. Walker (1999), in their study of the

organization and administration of study abroad offices, found that the smaller institutions are typically more resource-constrained and have employees that serve multiple purposes. In Walker's (1999) study, the institution, a small private four-year liberal arts institution in the midwestern United States, covers work in both education abroad and international student scholar services (Walker, 1999). A director with a terminal degree who also serves as an associate dean serves as the top administrator and is supported by two advisors and a secretary who helps the office's general administration (Walker, 1999). Overall, the literature on this topic is limited, and comprehensive studies on staffing at smaller institutions are equally limited. Based on resources and an institution's investment, the critical point to conclude is that the support for those offices would depend on the resources presented by the institution and the programmatic offerings.

Summary of Literature Review

In review, there's consensus in the literature that there are tangible benefits to a study abroad experience. The review of the research that shows increases in academic performance among different categories highlights the benefit that students gain as part of a study abroad participation. But despite the research that documents these successes, additional research is warranted that examines the benefit of STSA experiences when it comes to a student's persistence at an institution. Furthermore, there's even less information regarding study abroad programming at smaller liberal arts college institutions, where their function is contextual and based on the programmatic and resources available to these institutions. While there is a great diversity in the scene of liberal arts institutions, there is a significant gap in the research discussing any information regarding study abroad and their place at these institutions, let alone the impact of study abroad programming.

The objective of this project will be to fill this identified gap by conducting a study at a small liberal arts institution in the United States. The completion of this project will help contribute to the overall research already published within this field of study and assist international educators and educational professionals in making informed policy and practice decisions regarding STSA programming. This project seeks to contribute to this established body of research and develop a framework that future researchers can use to investigate related academic areas.

Chapter 3: Methodology

The purpose of this chapter is to overview the methodology for this study. The intention of this quantitative design will determine whether the established relationship between study abroad participation and retention/graduation persist through STSA and in the population of small private liberal arts institutions. This chapter will overview the research questions, research design, participant information, variables used in this study, limitations, and ethical considerations.

Research Questions

This study seeks to understand the relationship between students at small institutions participating in STSA experiences and the rate of academic persistence to graduation. This project will answer the following two research questions to learn more about this relationship.

Research Question 1: *Do students at small institutions that participate in short-term study abroad experiences graduate from their institution at a higher rate than students that don't participate in short term-experiences abroad*

Research Question 2: *Do students from small institutions that participate in short-term study abroad experiences persist to graduation faster than students that don't participate in short-term experiences abroad?*

Research Design and Participant Selection

This thesis will employ a quantitative research design using regression analysis at a single case study institution to answer the questions above. Ding (2006) discusses that the intention of regression analysis is "to investigate the relationships between a dependent variable (either categorical or continuous) and a set of independent variables based on based on a sample

from a particular population" (p. 1). As described in Chapter 2, many different inputs impact retention, such as student socioeconomic status or race. Because of the nature of regression modeling, it can be used in conjunction with these covariates to help describe if a quantitative relationship exists between retention and STSA participation. In doing so, it is anticipated that this study will be used to help institutions make better policy decisions, develop research that can be built upon in future projects, and contribute more quantitative analysis to this area of study.

Furthermore, this study was conducted using a single institution in a case-study model. When conducting research into graduation rates and retention, case study analyses are commonly used as a form of research analysis. The benefit of case study analyses is that they can contextualize data within respective institutions and compare them to overarching trends within the field of study. Additionally, this type of analysis eliminates some of the issues when comparing HEIs, such as academic grading scales or controlling for diverse student populations. In the case of this project, studies such as Xu et al. (2013) and Vande Berg et al. (2012) all use case study examples to showcase not only the impact of education abroad experiences at their respective institutions but contribute to the larger narratives about the impacts of said experiences as detailed in the second chapter. These considerations are even more critical for smaller institutions, which are unique and distinct and unique in their organizational design and programmatic offerings, as discussed in Chapter 2.

For an institution to qualify as a case study for this project, it had to be classified as a small higher education institution that offers STSA programming for its students. For this thesis, the definitions in the literature in Chapter 2 were utilized to define the terms "small higher education institution" and "STSA." For this project, this study used the Carnie Classification of Institutions of Higher Education (n.d.), which defines a small higher education institution as a

small four-year baccalaureate institution with a full-time enrollment of 1000 – 2900 degree-seeking students. Furthermore, these institutions had to offer some type of STSA experience as part of their academic offerings. For this study, STSA is defined using the definition from the Institute of International Education, an outbound international program that is in total 8-weeks or less (Martel et al., 2019). A list of 29 institutions was generated that fit this criterion, and the primary investigator contacted those institutions to see if they would be interested in participating in this study. After contacting and considering several institutions, the HEI that was identified and agreed to be the subject of this case study is Moon Crest College.¹ This institution was specifically selected as the case study for this project because of the investigator's previous professional experience working with this institution and ability to access data provided by the institution for this project.

Located in the south-eastern United States of America, Moon Crest College is a small, private, religious-affiliated institution with a student population of 1,429 students. The student population at Moon Crest College is diverse, with over 52% of the population being students of color, and it is home to a robust student-athlete population, where 38% of students participate in institutionally sponsored athletics. Additionally, Moon Crest College has historically had a substantial adult/non-traditional student population, where just under half of the students in 2012 were over the age of 23. This population has decreased substantially since 2011 but, nevertheless, remains an essential part of the college's student demographics.

Culturally, international programming at Moon Crest College is popular, where the institution states half of a graduating class will participate in some type of study abroad

¹ “Moon Crest College” is not the real name of the subject of this study. The name “Moon Crest College” is a pseudonym used to protect the real name of the institution.

programming by the time they graduate. STSA programming is especially prevalent, with Moon Crest College's program offerings evolving drastically over the last decade. Like many HEIs, summer programming has been a consistent offering at Moon Crest through internal faculty-led programs and programs that outside/third-party providers operate. During this time, Moon Crest College has also implemented January Term, an optional four-week intensive block where students had the opportunity to explore several on-campus and off-campus program offerings. Today, the institution uses a modified block schedule as part of its academic calendar. This schedule allows for international programming during selected block periods in the semester and supports STSA at Moon Crest College to this day. A single full-time staff member facilitates all international programs with support from faculty and other administrative offices.

Given the popularity of international experiences at this institution, Moon Crest College is ideal for studying in this population of schools. This institution is working through many of the same challenges that smaller institutions are in the United States. Smaller private HEIs such as Burlington College, as described in Hakim (2019), are struggling to stay open due to financial challenges and changing demographic trends. The challenges presented by the COVID-19 pandemic have only exacerbated this concern where many colleges are considering closing or merging with larger institutions (Larkin, 2019). Moon College is no stranger to these challenges. The institution has had its total enrollment drop by nearly 50% since 2010 and has made very public and drastic changes to its educational offerings to reposition itself. Because of the institution's current position as they continue to distinguish itself in the market of small private liberal arts institutions makes them an ideal case study for this project.

Data Collection

The collecting of all the data for this project was done virtually. The primary investigator contacted Moon Crest College via email, and the institution confirmed its commitment by submitting a letter to its Institutional Review Board (see Appendix A and Appendix B). After confirming with the primary investigator's approval of this project, Moon Crest College was asked to provide a digital spreadsheet including de-identified information for the entering Fall first-year classes of 2012, 2013, 2014, and 2015 (see Appendix C). These years were explicitly selected because Moon Crest College students had opportunities to participate in academic offerings that encouraged STSA program participation. Additionally, to measure all these students on four-, five-, and six-year graduation rates, the entering class of 2015 was the latest that data could be requested. While the focus of this study will remain on study abroad participation, it was necessary to collect the additional demographic variables to explain other intricacies in the study. Evidence presented in Chapter 2 shows that socioeconomic and demographic factors impact study abroad participation and are significant covariates to consider in regression analysis. Deidentified information was then requested for each of these students for each of the following variables listed in Table 1 (see Appendix C).

Table 1.

List and Description of Variables, Moon Crest College Case Study

Variable	Description
Race/Ethnicity	What is the Race of this Student?
Gender	What is the Gender of this Student?
First-Generation Status	Is this Student a First-Generation College Student?
Pell Grant Eligibility	Is this Student Eligible to Receive a Federal Pell Grant?
Traditional Student Status	Is this Student a Traditional Age Student?
Short-Term Study Abroad Participation	Did This Student Participate in a Short-Term Study Abroad Program?
International Student Status	Is this Student an International Student?
Graduation Status	Did This Student Graduate from Moon Crest College?
Time-To-Degree*	How Long Did It Take for This Student to Graduate?

Note: * = Time-to-Degree variable is only applicable in our models if the student's response to the variable Graduation Status is "Yes."

In this study, for the variable of "Short-Term Study Abroad Participation," there is no delineation between participation in faculty-led or affiliate/external programs, only whether they participated in a program. Additionally, there is no delineation between the length or destination of the experience, so long as that experience was international. For students with multiple international experiences, we asked Moon Crest College to respond "yes" once, regardless of the number of experiences that students participated in. Students who participated only in domestic short-term programs were grouped into the "No" category. If the student participated in both domestic and international programs, they were grouped into the "Yes" category, regardless of the number of experiences they participated in.

Data Analysis

For Research Question 1 addressing the relationship between retention and STSA participation, this project used a binary logistic Regression. This design measured the dependent

retention variable by whether a student graduated from Moon Crest College and modeled it against several covariates. In this study, whether a student retained to the institution or not was measured by whether that student graduated from Moon Crest College. This dependent variable was then connected to the independent variables of Race, Gender, and Pell Grant eligibility as part of this regression analysis.

For Research Question 2, this project employed an additional logistic regression connecting TTD against the several covariates listed below to determine whether a significant quantitative relationship exists. Specifically, the independent variables of Race, Gender, First-Generation Status, Pell Grant Eligibility, and STSA are analyzed against the dependent variables of TDD. All data analysis and regression models for this study were imported, coded, and assessed through the IBM SPSS statistical software package. Further information about methodological decisions regarding this project is included in the limitations section of this chapter and later in the discussion of Chapter 4.

Limitations of Study

Despite the findings of this project, there are several limitations to this study that need to be noted. Perhaps the most apparent restriction regarding graduation is that there is no singular quantifiable reason why a student does or does not persist to graduation. Factors both inside and outside the institution can impact why a student would persist to graduation, and it's important to note that this study does not include those variables. Non-academic factors such as medical reasons, personal/familial changes, or lack of motivation could explain why students do not consider studying abroad. Furthermore, students may justify that the cost-benefit of the experience is not worth the investment based on their academic and professional aspirations. Interis et al. (2018) mention that a student's educational plan and professional aspirations "affect

a student's internal calculus" when it comes to international programming (p. 1920). Trying to fully quantify why a student would not graduate from an institution is limitless and is an area for future research.

Compared to the literature presented in Chapter 2, a missing component that factors into retention and graduation rates not included in this study is academic performance. Much of the research investigating academic performance and retention connects a student's expected ability, such as SAT scores or first-year GPA. SAT scores are a standard indicator used to predict academic success within research. Studies mentioned in Chapter 2 intentionally use SAT scores as part of their methodology when predicting academic success in higher education. The challenge of including this variable in this sample is that many smaller institutions do not require prospective students to submit standardized tests to be accepted into the institution. There are also some questions in the current research about whether SAT scores are appropriate indicators and are an effective predictor of performance. Xu et al. (2013) also mention that in their analysis of study abroad participation and graduation rates at Old Dominion University, SAT scores were ultimately not used as part of their study because of their insignificance in predicting graduation (p. 92). Given that Moon Crest College could not provide this information because of its test-optional status, it was decided not to include these metrics in this study. Further studies in this area of research should seek to rectify this limitation and find alternative solutions to including this metric.

Additionally, using GPA as a predictor for academic performance is a standard methodology used by researchers in this field. GPA is an easily institutionally contextual quantitative metric that can determine early and post-academic performance. Studies such as Xu et al. (2013) and O'Rear et al. (2012) use first year and graduating GPAs as comparators to see

how academic performance changed quantitatively during students' time at the institution. The case of Moon Crest college creates a problem for this type of comparison since international STSA programming is an option for their first-year students if they are approved to do so. This policy creates a discrepancy in the intended outcome of examining academic performance. Some students have participated in first-year programming and, theoretically, would have already gained the benefits of participation in STSA measured in their first-year GPA. As a result of this policy at Moon Crest College, this study forgoes examining academic performance through pre- and post-GPA metrics. Researchers should consider similar policies within institutional settings and work to measure academic success in future studies.

In addition to academic limitations, this sample did not differentiate individuals who identify as a gender outside of “men” or “women.” While there is significant variation in expressing one’s sexual and gender identity and roles, as described in Lucas (2018), the raw data did not differentiate beyond these two categories. It is essential to recognize that individuals who identify with a gender or sexual identity outside of this binary are participants in this study; however, neither gender nor sexual identity is an aspect that this study investigates. This restriction is a significant limitation in this study. Future research in this area should seek to rectify and create more inclusive categorization to reflect the diverse expression of gender that this study could not.

Lastly, the variable of first-generation status was ultimately not included in the final data analysis of this project. The information for first-generation students was stored in another office other than the primary investigator was in contact with. Due to the time-sensitive nature of this project and the challenges of accessing this data, this metric was not included in this thesis.

Those who wish to build on this project are encouraged to include first-generation students in future research investigating this topic.

Ethical Implications

As with all research, ethical implications had to be considered when recruiting participants and completing this study. The first ethical consideration for this project was the issue of confidentiality for the data provided by Moon Crest College. The identities of these students and the sensitive information provided in this study could be used by outside parties and compromise an individual's privacy and security. To minimize these concerns about confidentiality, all the information collected as part of this study was de-identified during the data collection process so that no student's identity could be determined from the raw or analyzed data. Furthermore, the collected and analyzed data was stored in the Boston College TC Campion Lynch School of Education and Human Development private server. This encrypted server can only be accessed by the primary investigator and faculty advisor, thus protecting the data from being compromised by an outside party and maintaining the privacy of this information.

The second issue of ethical implications pertains to reputational risk. The participating institution in this study provided not only institutionally sensitive data but risked having their institution connected to the findings of this thesis. Regardless of whether the results of this study are to the benefit or detriment of the institution, having this study directly connected to the institution could potentially have an unforeseen impact on how external constituencies view it. To protect the institution, the primary investigator has used the previously mentioned pseudonym of "Moon Crest College" in place of their real institutional name for all purposes of this study. Additionally, the overview of Moon Crest College's STSA programming model earlier in this

chapter has intentionally redacted some information to protect the institution from being identified.

Chapter 4: Findings and Discussion

This chapter will overview the sample provided by Moon Crest College and present an analysis of that data. The first section will overview the descriptive statistics of the data set, including frequency tables and their relationship to current trends within this field of study. The second section will look at the descriptive statistics of the STSA sample and understand how they relate to the overall sample. The final sections will look at regression analyses for Research Questions 1 and 2 and discuss the implications of the results in relation to the literature in Chapter 2.

Overall Descriptive Statistics of Moon Crest College Sample

The sample provided by Moon Crest College yielded a total sample size of $N = 1359$. These numbers are distributed over entering first-year Fall classes of 2012, 2013, 2014, and 2015 and are represented in Tables 2 and 3 below.

Table 2*Student Status Breakdown for Moon Crest College First Year Entering Classes, 2012-2015*

	Gender		Pell Grant Status		Student Status		Intl. Student Status		
	Enrollment	Female	Male	Pell Eligible	Not-Pell Eligible	Traditional	Non-Traditional	Intl.	Domestic
2012	305	144	161	116	189	303	2	2	303
2013	392	166	226	143	249	391	1	12	380
2014	351	151	200	242	109	350	1	11	340
2015	311	140	171	222	89	311	1	2	309
Total	1359	601	758	723	636	1355	5	27	1332

Note. Intl. = International.

Table 3*Racial/Ethnic Breakdown of Moon Crest College First Year Entering Classes, 2012-2015*

	Enrollment	Asian	Black/African American	Hispanic	Native American	Native Hawaiian	Two-or More Racial Identities	Unknown	White
2012	305	6	34	25	0	0	15	2	223
2013	392	15	67	33	0	1	12	13	251
2014	351	13	73	28	0	1	14	13	209
2015	311	14	63	26	1	0	11	6	190
Total	1359	48	237	112	1	2	52	34	873

Immediate analysis of the descriptive statistics shows that Moon Crest College confirms its classification as a small institution, with its annual fall recruiting classes falling between 300 to 400 students. The mean enrollment of these classes is $M = 340$ (rounded up), with 2013 having the maximum class of 392 students and 2012 having the minimum class enrollment of 305 students. Most of these students are male, representing approximately 55.7% of the students recruited compared to the 44.3% of female counterparts. This distribution departs from current higher education enrollment trends where women tend to be higher enrolled than men. The National Student Clearinghouse Research Center (2021) reports that women constitute 59.2% of higher education enrollment while men are 40.8% of this demographic.

Further examination of this data showcases interesting trends regarding Pell Grant eligibility at Moon Crest College. The number of students eligible to receive a Pell Grant is $n = 723$, representing 55.7% of the total sample. Over the years examined in this sample, the proportion of students in each class that are Pell Grant eligible has gradually increased, from 116 in 2012 to 222 in 2015. Percentagewise, this is an increase in the proportion of the class from 38% in 2012 to 71.3% in 2015, suggesting that the amount of financially needy students studying at Moon Crest College increased substantially during this time frame. Further research into the more recent years of Moon Crest College not captured in this sample would confirm whether this trend is sustained.

In comparing traditional student status, nearly all students represented in all classes are traditional students, with non-traditional students being $n = 5$. It is to the understanding of the primary investigator that non-traditional students have historically constituted a significant portion of the population at Moon Crest College. Still, a few reasons might explain why this number is so low. Firstly, for Moon Crest College, the periods in which we requested this data

were during significantly declining enrollment in non-traditional students due to changes at the institution. This low number reinforces the narrative that non-traditional students were no longer enrolling at Moon Crest College, as institutionally contextual changes discouraged enrollment from this student population. According to Interis et al. (2018), non-traditional students have different characteristics that delay their enrollment, such as professional commitments or not being financially dependent. Considering the above, it's possible that these students are not necessarily bound to enroll in a fall term as their traditional counterparts might, hence why not more students were captured in the data collection process. Additional information on this population at Moon Crest College may provide insight into specific enrollment trends for non-traditional students.

Additionally, the number of international students is low across the entire set, with $n = 27$, representing 1.9% of all classes. This variable represents all currently registered international students with Moon Crest College and not students who may identify as international based on their background. Examples of individuals who are not included in this group include non-resident aliens, students with multiple citizenships, or students who identify as international yet have the means to register as American college students without having to register with Moon Crest College's international office. Additionally, the race/ethnicity of this demographic was not made available as part of this data set and was not collected by Moon Crest College in their records.

In the analysis of racial demographics in Table 3, Moon Crest College's enrollment in these classes is primarily white students with $n = 873$, constituting most of all recruitment classes at 64.2%. Throughout the time examined, the demographic breakdown of the recruitment classes seems to shift slightly. The overall percentage of white students as a proportion of each class

decreased, from 73.1% in 2012 to 61.1% in 2015. Simultaneously, the Black/African American and Asian proportion of class size increased substantially, with Black/African American students increasing their proportion from 11.1% in 2012 to 20.2% in 2015, while Asian students went from 2% in 2012 to 5% in 2015. The enrollment of Hispanic and Multi-racial students has remained steady over the years of this sample, representing between 7-8% and 3-4% of each class, respectively. The enrollment of Native American and Native Hawaiian individuals is small, with $n = 1$ and $n = 2$ students for each category, respectively. Lastly, in total, students whose racial/ethnic identities were unknown or unlisted by Moon Crest College were $n = 34$. These students fall into three considerations within this classification. Firstly, their racial/ethnic identity was unknown and unlisted by Moon Crest in the data collection process. The second item is that these students were international students, a student group on which Moon Crest College does not record racial/ethnic data. Lastly, these students are non-alien resident students whose demographic identity is not collected as part of their profile. To protect the identity of all these students, information about these students is grouped into one category.

The frequencies of the variables of STSA participation and graduation status in the total sample can be seen below in Table 4.

Table 4

STSA and Graduation Status, Moon Crest College First Year Entering Classes, 2012-2015

	Enrollment	STSA Participation		Graduation Status	
		Yes	No	Graduated	Did Not Graduate
2012	305	54	251	182	123
2013	392	49	343	224	168
2014	351	40	311	173	178
2015	311	42	269	170	141
Total	1359	185	1174	749	610

In total, the number of individuals that studied abroad in an international STSA program is $n = 185$, representing approximately 13.6% of the total sample size. Participation by class ranges depending on the class; in general ranges between 40-50 participants per class, representing between 10-15% of each class. Overall, the number of students who persisted to graduation at Moon Crest College in this sample was $n = 749$, representing 55% of the sample. Graduation rates from the enrollment were 59.6%, 57.1%, 49.2%, 54.6% for the 2012, 2013, 2014, and 2015 years respectively. While there is a decreasing trend from 2012 to 2014, the overall percentage in the class of 2015 increased. Whether this trend is sustained today at Moon Crest College is outside of the scope of this sample. The evidence pertaining to TTD can be seen below in Table 5.

Table 5

Time-to-Degree, Moon Crest College First Year Entering Classes, 2012-2015

	Fall Enrollment	Time-To Degree							Total
		2	3	4	5	6	7	8	
2012	305	0	8	149	24	0	0	1	182
2013	392	2	1	187	26	3	1	4	224
2014	351	1	3	130	32	5	2	0	173
2015	311	5	4	132	27	2	N/A	N/A	170
Total	1359	8	16	598	109	10	3	5	749

Note. "Time-to-Degree" measured in Years. "Fall Enrollment" representative of the number of student enrolling into Moon Crest College that class year. "Total" represents the cumulative number of students that graduated from Moon Crest College in that respective class. Seven- and Eight-Year graduation periods for the class of 2015 are listed as "N/A" because, as of writing this thesis, the time has not passed to measure individuals who have graduated within those time frames.

Across all the years examined, most students who persisted to graduation did so within a four-year or five-year window, with 83% of students graduating in four and 97.5% doing so in five. Individuals graduating within six years were minimal comparatively across all other TTD measurements, with only 1% of students graduating longer than six years across the dataset. The data also revealed that students graduating in less than 4 years is $n = 24$. Interestingly, the sample yielded a group of students who graduated in 2 years with $n = 8$. It is understood that these specific students came in with enough undergraduate credits either through college-level work completed in high school or through Moon Crest College's institutionally sponsored early college program.

The information above showcases that Moon Crest College is a unique small liberal arts institution whose gone through some substantial changes throughout this time measured. While still rooted in being a predominately white institution, students' diversity and economic needs have generally increased over the period measured. While students struggle to graduate from Moon Crest College, those that do graduate do so typically in a 5-years or less. The next section of this thesis will look specifically at the students in this sample who participated in STSA experiences and how they relate to the overall sample.

Descriptive Statistics of Short-Term Study Abroad Participants

The dataset above yielded a unique student population that participated in STSA experiences in $n = 185$. This number only indicates the students within this dataset that participated in these experiences and not a complete picture of the study abroad profile at Moon Crest College. Raw data of these experiences showed that across all STSA programming available to students in the classes of 2012-2015, all experiences collectively yielded 689 participants. Of this group, 217 entries were removed because they were repeat participants in

more than one STSA experience, leaving the 472 unique participants. This group was then connected with the sample provided by Moon Crest College to result in 185 students in these classes that participate in STSA. Additional students participated in STSA beyond this number but are not reflected due to this project's scope. A breakdown of the demographics of this specific student population and racial/ethnic breakdown can be seen below in Tables 6 and 7.

Table 6

Student Status Breakdown of Moon Crest College STSA Participants in First Year Entering Classes, 2012-2015

	STSA Participants	Gender		Pell-Grant Status		Student Status		Intl. Student Status	
		Female	Male	Pell Eligible	Not-Pell Eligible	Traditional	Non-Traditional	Intl.	Domestic
2012	54	35	19	12	42	54	0	0	54
2013	49	29	20	7	42	49	0	3	46
2014	40	25	15	15	25	40	0	0	40
2015	42	29	13	21	21	42	0	0	42
Total	185	118	67	55	130	185	0	3	182

Note: STSA Participants are reflective of the STSA participants per class. Intl. = International.

Table 7*Racial/Ethnic Breakdown of Moon Crest College STSA Participants in First Year Entering Classes, 2012-2015*

	SA Participants	Asian	Black/African American	Hispanic	Native American	Native Hawaiian	Two-or More Racial Identities	Unknown	White
2012	54	0	1	10	0	0	1	0	42
2013	49	2	2	3	0	1	0	3	38
2014	40	1	4	3	0	0	0	0	33
2015	42	4	3	3	0	0	3	0	29
Total	185	7	10	19	0	1	4	3	142

Note. STSA Participants are reflective of the STSA participants per class.

Observation of the data above shows that 63.7% of this group identifies as female and 76.7% as white. Conversely, 23.3% of students who participated were non-white students, with Hispanic students making up the most significant representation of $n = 19$, representing 10.2% of the STSA sample. Furthermore, most of these students were not eligible to receive a Pell Grant, with $n = 55$, representing only 29.7% of the total STSA students at Moon Crest College. Additionally, no non-traditional students were identified in this group, and a limited number of international students were present in the sample with $n = 3$.

These findings follow current trends in this field of study as described by Martel et al. (2019), Lucas (2018), Bell and Glass (2018), and McGee et al. (2018), who affirm that participants in study abroad programming, in general, are individuals who identify as white, female, and are not from socioeconomically challenged backgrounds as determined by Pell Grant eligibility. Further information on TTD for this population can be seen below in Table 8.

Table 8

Time-to-Degree, Moon Crest College STSA Participants in First Year Entering Classes, 2012-2015

SA Participants	Time-To-Degree								
	2	3	4	5	6	7	8	DNG	
2012	54	0	1	41	8	0	0	0	4
2013	49	0	0	38	5	1	0	1	4
2014	40	0	0	26	7	2	0	0	5
2015	42	0	2	30	5	0	0	0	5
Total	185	0	3	135	25	3	0	1	18

Note. "Time-to-Degree" measured in years. STSA Participants are reflective of the STSA participants per class. DNG = Did Not Graduate.

Examination of Table 8 shows that most STSA students at Moon Crest College participated retained to the institution and persisted to graduation across all years examined. Of all of the students that participated in STSA programming, only a small group did not continue to graduate from the institution where $n = 18$, representing only 9.7% of these students. This information shows that 91.3% of students who participated in STSA experiences at Moon Crest College graduated from the institution. Furthermore, of the students who graduated from Moon Crest College, 97% graduated within five years from when they entered the institution. Only a small group that participated in STSA experiences graduated from the institution after five years, $n = 4$.

These descriptive statistics show two crucial facts that are worth highlighting. A significant majority of students who participated in STSA experiences at Moon Crest College graduated from the institution. Furthermore, those who graduated from the institution did so within five years of entering the institution. While the evidence in the descriptive statistics is compelling, the following sections of this chapter will examine whether a significant relationship exists between STSA participation, and the variables discussed above when compared to the overall sample.

Manipulation of Sample for Regression Analysis

Several changes to the variables were made to analyze the following regression models. These decisions were made to consolidate the data into easier-to-understand formats and account for issues within the sample provided by Moon Crest College. Firstly, two significant changes were made to the “Race/Ethnicity” information. These categories' consolidation was due to limited power within certain demographic categories and simplifying regression analysis. For analysis of the regression models, the students whose race and ethnicity identity that was

“Black/African American” and “Hispanic” were combined into one category, “Black/Hispanic.” In their study, Nichols and Anthony Jr. (2020) state that Black and Latino students have similar completion percentages when examining 6-year graduation rates and that they both fall behind significantly compared to their white student counterparts. While quantitative and qualitative differences will naturally exist between these two populations for other educational metrics, it was decided to combine these two categories to simplify the analysis for these regression models. Secondly, the categories of “Native American” and “Native Hawaiian” students were incorporated into the category of “Multiracial” to change the category to “Multiracial/Other.” Given the small size of both populations in the sample and an effort to include them in the regression, the decision was made to expand the Multiracial category to include representation of other races identified in the regression that aren’t large enough for their analysis. This group does not include students listed as “Unknown,” though, whose racial identities could not be identified and have their own categorization in the models.

In addition to the racial/ethnicity category changes, TTD categories were collapsed for fewer outcome possibilities in the regression models. This decision was made due to a lack of power in some of the TTD categories and an effort to include all entries in the sample. As a result, students who completed their degree within three years were included in the four-year analysis to create a new timeframe of “4-years or less.” Furthermore, students marked as completing their degree in “6-years,” “7-years,” and “8-years” were included into “5-years” to create “5-years or more.” Additional notes and justification regarding TTD and this data manipulation are included later in this chapter.

The final data manipulation was regarding the variables of “international student” and “traditional student status.” The representation of these students was significantly less than what

was initially predicted, and there was not sufficient power to include these variables in the model. Because of this consideration, these variables were removed from regression models in this study. These variables may still be relevant to this field of study, and future studies should attempt to integrate these variables into their models if the study justifies doing so.

Regression Model in Research Question 1

It's evident from the descriptive statistics that students who participate in STSA experiences succeed in graduating on time at Moon Crest College, but further investigation is needed to conclude this effectively. For the first research question, *“Do students at small institutions that participate in short-term study abroad experiences graduate from their institution at a higher rate than students that don't participate in short term-experiences abroad?”* A binary logistic regression was utilized to determine whether a quantitative, statistically significant relationship exists between STSA and graduation and if other covariates help explain this relationship. This regression analysis was run with the variable “Graduation Status” as the dependent variable and with “STSA Participation,” “Gender,” all Racial and Ethnic Categories (Black/Hispanic, Asian, Multiple Race, Unknown Race), and “Pell Grant Eligibility” as independent variables. This regression used the entire Moon Crest College sample with $N = 1359$.

All variables in this regression are dichotomous, with coding details described below. In the variable “Graduation Status,” entries coded where a “1” designates that that student graduated from Moon Crest College, and “0” means they did not. Independent variables in this model were coded off “dummy” categories referenced in the literature. Students who had not participated in STSA were designated a “0,” while students who did participate were assigned a “1.” In the “Gender” category, a student identified as female was coded with a “0” while their

male counterparts were designated with a “1.” The literature informs us that most students are white, so respective to their racial category, “0” was given to students who were not in that racial category, and “1” was given if they were. For example, in the “Black/Hispanic” group, a “0” was coded to students not marked as “Black/Hispanic”, and “1” was given to students that are. The literature also states that students studying abroad are likely not to be from poor backgrounds and were coded as such. The variable of “Pell Grant Eligibility” was coded with students who were not Pell Grant eligible listed as a “0” and as a “1” for students that were. TTD variables were not included in this specific regression model and are discussed later in this chapter. Significance levels in this regression are $\alpha = 0.05$, meaning any regression result with a significant level less than $p = 0.05$ is statistically significant in this model.

Before comparing all the independent variables to the dependent variable, it was first investigated whether, without confounding variables, a relationship exists between study abroad participation and graduation. Given that many of the demographics above are also indicators of whether a student will persist to graduation regardless of STSA participation, it is worth investigating how the variables impact the overall regression model between these two variables. To investigate this first consideration, logistic regression was utilized to ascertain the effect of participation in STSA experiences and graduation, without co-variates, at Moon Crest College. The complete results of this regression relationship between these two variables can be seen below in Table 9.

Table 9*Logistic Analysis: STSA Participation v. Graduation Status, Moon Crest College First Year Entering Classes 2012-2015*

Parameter	β	SE β	Wald's X^2	DF	p	OR	CI (Lower)	CI (Upper)	
STSA Participation	Yes v. No	2.245	.255	77.574	1	<.001*	9.437	5.727	15.552
Constant		-.17	.058	.085	1	.77	.983		
Test		X^2	DF	p					
Omnibus Test of Model Coefficients		124.239	1	<.001					

Note. * = Statistically Significant Value

The Omnibus Test of Model Coefficients shows that the logistic regression model has a statistically significant, with a value of $p = >.001$, meaning the model appropriately fits the data. This model explained 11.7% (Naglekerke's R²) of the variance in a student's ability to graduate accurately predicted 55.8% of the cases. Overall, the variable of STSA participation contributed to this regression model. The unstandardized Beta weight for the constants; $B = -.17$, $S.E. = .058$, $Wald = .77$, and $p = .77$. Specifically, the variable of STSA participation when isolated within this model is statistically significant when modeled against graduation status, with; $B = 2.245$, $SE = .255$, $Wald = 77.574$, and $p = <.001$. In interpreting the results of this model, students participating in STSA experiences are over nine times more likely to graduate from Moon Crest College than students who do not (OR = 9.437, 95%CI [5.727,15.552]).

Since a determination between the dependent variable and the variable of interest exists, additional covariates needed to be added to the logistic model for analysis. For this logistic regression, the dependent variable of "Graduation Status" was modeled against "STSA participation" and all covariates, including Gender, all racial/ethnicity categories, and "Pell Grant Eligibility." The complete logistic regression analysis results can be seen below in Table 10.

Table 10

Logistic Analysis: Independent Variables v. Graduation Status, Moon Crest College First Year Entering Classes 2012-2015

Parameter	β	SE β	Wald's X^2	DF	p	OR	CI (Lower)	CI (Upper)	
STSA Participation	2.092	.258	65.641	1	<.001*	8.102	4.884	13.440	
Gender									
Male v. Female	-.435	.117	13.724	1	<.001*	.647	.514	.815	
Black/Hispanic									
Black/Hispanic v. White	-.380	.136	7.812	1	.005*	.684	.523	.893	
Asian									
Asian v. White	.257	.323	.784	1	.426	1.293	.687	2.433	
Multiple Race									
Multiple Race v. White	-.256	.289	.784	1	.376	.774	.439	1.364	
Unknown Race									
Unknown Race v. White	.609	.392	2.409	1	.121	1.838	.852	3.964	
Pell-Grant Eligibility									
Eligible v. non-Eligible	-.151	.120	1.592	1	.207	1.838	.680	1.087	
Constant	.415	.118	12.313	1	<.001*	1.514			
<hr/>									
Test	X^2	DF	p						
Omnibus Test of Model Coefficients	157.763	7	<.001*						
Hosmer and Lemeshow	8.0192	8	0.432						

Note. * = Statistically Significant Value

In the test of model fit, The Omnibus Test of Model Coefficients shows that the logistic regression model has a statistically significant, with a value of $p = >.001$. The additional test of model fit in Hosmer and Lemeshow shows an insignificant value of $p = .432$, which additionally signifies that this model appropriately fits the data. Overall, this model explained 14.7% (Naglekerke's R^2) of the variance in a student's ability to graduate accurately predicted 61.9% of the cases. Overall, the variable of STSA participation contributed to the model. The unstandardized Beta weight for the constant; $B = .415$, $S.E. = .118$, $Wald = .12.313$, and $p = <.001$.

Several of the variables in this regression model were significant indicators for graduation at Moon Crest College, including the variable of interest in this study. Similarly, in the first regression model, the variable of STSA participation within this model is statistically significant when modeled against graduation status and other covariates, with; $B = 2.092$, $SE = .258$, $Wald = 65.541$, and $p = <.001$. Within the confines of this model, this means that students participating in STSA experiences are over eight times more likely to graduate from Moon Crest College than students who do not ($OR = 8.102$, 95%CI [4.858,13.440]). Interestingly, this variable was the only statistically significant variable with a positive relationship with graduation status.

The other two statistically significant variables, "Gender" and "Black/Hispanic," had a negative relationship. Starting with "Gender", this variable is statistically significant when modeled against "Graduation Status" and other covariates within the sample with $B = - .435$, $SE = .117$, $Wald = 13.724$, and $p = <.001$. This result means within this sample at Moon Crest College, a student that identifies as male is statistically less likely to graduate than a student identified as female by a factor of .647 ($OR = .647$, 95%CI [.514,.815]). Additionally, students

that identified as “Black/Hispanic” also have a statistically significant impact on this model when compared against graduation status and other covariates with $B = -.350$, $SE = .136$, $Wald = 7.812$, and $p = .005$. This result is interpreted that students who identify as Black/Hispanic in this data set are statistically less likely to graduate by a factor of .684 than their white counterparts (OR = .684, 95%CI [.523,.893]). The remaining racial/ethnic categories and “Pell Grant Eligibility” did not emerge as statistically significant variables within this model.

Discussion of Research Question 1 Regression Results

This regression model shows that at Moon Crest College, there is a substantial relationship between STSA participation and graduation from the institution. This result follows much of the findings of previously published studies such as O’Rear et al. (2012), Barclay-Hamir (2011), and Xu et al. (2013) in finding a positive relationship between study abroad participation and graduation. Without considering covariates, students who participate in STSA programming at Moon Crest College are more than nine times more likely to graduate from the institution than students who don’t. When considering covariates, this only decreases marginally, with students still more than eight times more likely to graduate from the institution.

The regression model stated that the gender of a student also had an impact on whether graduation was likely from Moon Crest College. Lucas (2018) says that “although [men] are not underrepresented in most aspects of American society,” there is a significantly higher underrepresentation in higher education and education abroad. The evidence in this regression model found a negative relation that men were statistically less likely to graduate from Moon Crest College when compared to women. The evidence of this study falls in line with Reeves and Smith (2021), who note the stratification of men, particularly men from minority groups, compared to women when it comes to enrolling and graduating from higher education (Metzger,

2006). This discrepancy also falls in line with the descriptive statistics related to study abroad participation above and that women dominate the gender differentiation when it comes to participation in higher education and education abroad opportunities (Lucas, 2018).

Furthermore, this model also found a statistically significant relationship between the Black/Hispanic racial category. It's stated in Cole (1991) and Metzger (2006) and the general literature on this topic that students from minority groups are underrepresented in education abroad experiences and in American higher education in general. The findings of this regression model are consistent with the literature in those students who identify as Black/Hispanic at Moon Crest College, from a quantitative perspective, would appear to face similar challenges consistent with these minority groups in higher education. Although all other racial/ethnic categories did not exhibit a statistically significant impact on the model, efforts to promote diversity, equity, and inclusion within higher education and education abroad should continue to be sustained.

Interestingly, a student's Pell Grant eligibility was not a statistically significant factor when predicting graduation status at Moon Crest College. Given the background about the challenges that financially students face in Bell and Glass (2019) and Chapter 2, it was hypothesized that a negative relationship would exist between this student population and graduation to the institution. This study found no statistically significant relationship between Pell-Grant eligibility and graduation, contradicting the current literature on this topic regarding financially disadvantaged students. Given the plethora of information in Bell and Glass (2019), this deviation from generally accepted literature could be the selective sample from the case study of Moon Crest College, where this institution, for qualitative reasons, does not have a connection between graduation and Pell Grant eligibility.

Overall, a substantial relationship in these regression analyses shows that students at Moon Crest College are statistically more likely to graduate than students that do not. These analyses are irrespective of TTD, which plays a significant role in one's persistence to graduation, which will be discussed in the following sections of this chapter.

Regression Model in Research Question 2

For research question 2, *Do students from small institutions that participate in short-term study abroad experiences persist to graduation faster than students that don't participate in short-term experiences abroad?* significant changes needed to be made for the analysis of this question. As described earlier in this chapter, the number of students graduating in 2-years, 3-years, 6-years, 7-years, and 8-years are well below the minimum of 30 observations one needs to do logistic regression analysis. Based on the number of observations in the data, this project was unable to be determined in this study whether participation accelerated a student's ability to graduate through regression analysis by looking at individuals' TTDs. To accommodate this issue in the data, the sample consolidated students from Moon Crest College into two larger groups: "4-Years or Less" and "5 Years or More." The edited question in relation to these updates was changed to *Do more students from small institutions that participate in short-term study abroad experiences graduate in a four-year or less period than students that don't participate in short-term experiences abroad?*

A rapid examination of the means of these populations can begin to illuminate this question. Analysis of the sample of Moon Crest College shows that the average TTD across all graduates is $M = 4.168$ years, slightly over a 4-year reference window used to evaluate TTD. When separated between study abroad participation, there is a slight discrepancy between participants and non-participants. At Moon Crest College, STSA participants, on average, took

slightly longer to graduate than non-participants, with STSA participants graduating in $M = 4.191$ years and non-participants graduating in $M = 4.161$ years. The comparison of means would suggest that non-participants take less long to complete their degree than STSA participants. A regression analysis needs to be utilized to confirm whether this is the case. Based on the available data in this sample, it was decided to investigate whether participation in STSA programming delayed a student's persistence to graduation. For this logistic regression model, the TTD variable is used on the dependent variable and the independent variables of STSA participation, gender, all racial/ethnicity categories (Black/Hispanic, Asian, Multiple Race, Unknown Race), and Pell Grant eligibility as independent variables. This regression model only applied to students who graduated from Moon Crest College; those who did not graduate were excluded from the analysis because they had no TTD measurement.

For coding in SPSS, the independent variable of TTD, students were coded as a “1” if they graduated in “5-Years or More” and a “0” if they graduated in “4-Years or Less.” The decision to use the category of “4-Years or Less” as the reference was because most students at Moon Crest College graduate within four academic years or less. All other variables were coded the same in this model as they were in the previous logistic regression. Significance levels in this regression analysis are $\alpha = .05$. The full results of the regression can be found below in Table 11.

Table 11

Logistic Analysis: TTD vs. Independent Variables, Moon Crest College First Year Entering Classes, 2012-2015

Parameter	β	SE β	Wald's			OR	CI	
			X ²	DF	p		(Lower)	(Upper)
STSA Participation	.216	.246	.773	1	.379	1.241	.767	2.010
Gender								
Yes v. No	.984	.211	12.811	1	<.001*	2.676	1.771	4.046
Male v. Female								
Black/Hispanic	.410	.238	2.965	1	.085	1.507	.945	2.403
Black/Hispanic v. White								
Asian	-.207	.559	.136	1	.712	.813	.272	2.434
Asian v. White								
Multiple Race	-.906	.751	1.454	1	.228	.404	.093	1.762
Multiple Race v. White								
Unknown Race	-.021	.575	.001	1	.970	.979	.317	3.020
Unknown Race v. White								
Pell-Grant Eligibility	-.085	.211	.161	1	.688	.919	.607	1.390
Eligible v. non-Eligible								
Constant	-2.222	.222	100.355	1	<.001*	.108		

Test	X ²	DF	p
Omnibus Test of Model Coefficients	29.750	7	<.001*
Hosmer and Lemeshow	2.377	7	.936

*Note: * = Statistically Significant Value*

Like Research Question 1, the first item to examine is the determination of model fit. In the examination of the Omnibus Test of Model Coefficients and the Hosmer and Lemeshow test, which signifies the data fit of the model. The Omnibus has a significance level of $p = <0.01$, and the Hosmer Lemeshow Test has a significance level of $p = .936$, both of which are indicators of appropriate model fit. Overall, this model explained 6.5% (Naglekerke's R²) of the variance in a student's ability to graduate within a four-year or less period at Moon Crest College accurately predicted 83.0% of the cases. The unstandardized Beta weight for the constant in this model; $B = -2.222$, $S.E. = .222$, $Wald = 100.355$, and $p = <.001$.

In examining the variables in the model, the only variable that is statistically significant within this model is Gender, with $B = .984$, $S.E. = .211$, $Wald = 21.811$, and $p = <.001$. This positive correlation concerning this model is interpreted that the likelihood of an individual graduating in 5 years or more increases by a factor of 1.6 if the student is male instead of female (OR = 2.676, 95%CI [1.771, 4.046]). Other than this variable, no other variable in this regression model had a statistically significant impact on a student's TTD within this model.

Discussion of Research Question 2 Regression Results

The results of this regression analysis evidence clearly that there is no relationship between STSA participation and TTD in this model. Because of the small sample size and lack of association in the regression analysis above, this study cannot accurately conclude whether participation in STSA experiences delays or shortens a student's TTD. If the two groups had a relationship, the analysis would have evidenced a negative statistically significant relationship between faster TTD and a positive statistically significant association for a slower TTD. While an overall comparison of means suggests that non-STSA students graduate at slightly faster rates than their STSA counterparts, the results of this regression model are inconclusive.

Analyzing this from a practical perspective, the lack of relationship to TTD is not completely surprising. Many integrated short-term periods of study within institutions, such as summer STSA programming, fall outside the traditional academic year cycle, making them optional experiences for students. These periods of study are opportunities for students to catch up on credits if they have fallen behind or get ahead on credits to take fewer courses later in their academic careers. These considerations may be the case at Moon Crest College, where until only a few years ago, these short-term periods of study were considered “outside” of the traditional academic year. Because of the independent nature of these study periods, the lack of relationship between the participation and TTD might make them a negligible impact on a student’s graduation within a particular time period.

Much of the literature discussed in Chapter 2 mentions the potential correlation between participation in study abroad and delaying graduation. Malmgren and Gavin (2008) and Colorado State University (2017) both state in their studies concerns of slowing graduation due to participation in study abroad experiences. While the results of this regression do not necessarily dispel these concerns, it does provide evidence that potentially, the relationship between STSA experiences and TTD is irrelevant. Had there been a relationship between the two groups, the analysis would have evidenced in this model a negative statistically significant relationship for a faster TTD and a positive statistically significant association for a slower TTD. While students who participate in STSA experiences may enroll in more terms, as described in Ingraham and Peterson (2004), it does not necessarily mean that their TTD will be impacted.

Of the variables examined in this regression, it’s essential to recognize the importance of the one statistically significant variable: “Gender.” The regression analysis found the relationship between the 5-years or more TTD window and men contributes to much of the current literature

regarding male participation and completion in higher education. Much of Reeves and Smith (2021) discuss the continuing disparity between women and men regarding college enrollment and completion. In their study, Reeves and Smith (2021) stated that “Men who enrolled in a four-year college in 2013 were ten percentage points less likely than women to graduate within four years.” The statistically significant result of this study at Moon Crest College seems to contribute additional evidence that men take longer to graduate than their female counterparts.

Perhaps the most interesting item from this model is that no racial/ethnic categories were statistically significant in determining this study’s measurement of TTD. The racial/ethnic category of “Black/Hispanic” was the closest in this model to be significant with $p = .085$ but remained above the α level significance in this study. While this does not eliminate the possibility of a relationship between racial identity and TTD or persistence to graduation, as Metzger (2006) described, this lack of a statistically significant relationship is important. Manipulation of the data and further sampling may yield statistically significant results, but no relationship was found in this model. These absences in this model also extend to the lack of connection between Pell Grant eligibility and TTD. Bell and Glass (2019) mention that TTD is typically longer for students in a low socioeconomic class than for students of high socioeconomic status. Common knowledge would suggest that this relationship would persist in the Moon Crest College case study. The findings of this study detract from what Bell and Glass (2019) state and provide evidence of a counternarrative that Pell Grant eligibility may be unrelated to TTD. Additional quantitative and qualitative studies could verify this claim at Moon Crest College and other institutions.

Chapter 5: Conclusion

This chapter will conclude this project and summarize the findings of this thesis. The first section of this chapter includes an abbreviated overview of the findings of this project. The second section will overview the implications of this research, detailing what the results of this project will mean, and how it contributes to this body of research. The final chapter will suggest recommendations for future research, building on the limitations and methodology of this study, and proposing avenues where future researchers could investigate further.

Overview of Findings

In conclusion, this quantitative study examining retention and TTD through participation in STSA experiences yielded a significant contribution to this field of research. Through statistical and regression analysis, the case study at Moon Crest College, this case study evidenced a statistically significant quantitative relationship between graduation from the institution and participation in STSA experience. The distinguishing factor of this study is that this relationship is specifically from participation in STSA programming and does not include mid-or-long term study abroad programming. Furthermore, the case study subject for this project, Moon Crest College, adds a needed element of institutional diversity as a small private liberal arts college to this field of study. This additional evidence to this body of research reinforces the findings of previous studies that participation in international education experiences is related to a student retaining and graduating from their higher education institution.

In addition to the above, this study did not find a conclusive relationship between participation in STSA experiences and TTD. While there are some limitations within the modeling of TTD measurement in this study, the regression analysis results found no relationship

between a student's participation in STSA experiences and their ability to graduate faster or slower when compared to other peers. These two findings of this study should help advise administrators and other institutional stakeholders that participation in STSA programming has a positive association with graduating from an institution without a clear benefit or detraction from a student's TTD. The next section of this chapter will discuss the implication of this research project on this body of research.

Implications on Field of Study

The results of this study have several implications for this field of research and offer evidence to institutions and policymakers considering or implementing STSA programming. The case study of Moon Crest College and this thesis support the current narrative in this field of research that participation in study abroad experiences lead to a higher likelihood of retaining and graduating from the institution. The fact that the setting and emphasis of this study support current trends in the field and give confidence to institutions that offer similar programming that there is a statistically significant relationship between retention and participation in these experiences. Furthermore, if any institutions similar in nature to Moon Crest College are considering integrating short-term programming, doing so may yield similar results as seen in this study. As previously mentioned in Chapter 3, many qualitative factors impact STSA that are institutionally contextual. It is the hope that the results of this study help contribute to policy development and the continuing internationalization of HEIs in the United States of America.

The regression analysis results for the second research question are significantly less apparent. The lack of relationship between different variables and participation in STSA. As mentioned in Chapter 2, one of the concerns addressed in Malmgren and Gavin (2008) and Colorado State University (2017) was that students who participate in study abroad experiences

would be delayed in graduating from their institutions and that additional research would be needed. Although this project was inconclusive in that determination, institutions, and administrators should keep that in mind when making decisions around STSA. But as much as STSA participation was inconclusive about delaying graduation, it was equally inconclusive about the possibility of graduating early. One argument is that opportunities to participate in STSA experiences could hasten the completion of an undergraduate degree by giving students access to term credits that otherwise are outside of the scope of the traditional academic year. At a minimum, the results of this study concerning TTD suggest that fears related to study abroad participation and delayed graduation may be a perception by students and administrators. Additional quantitative and qualitative research into the relationship between TTD and STSA could help explain this further.

Lastly, it is essential to point out that in this sample, most of the students that participated in STSA experiences demographically followed many of the majority trends currently seen within this field of study. A majority of STSA participants at Moon Crest College were identified as white, female, and, based on the definitions in this study, not economically disadvantaged. Much of the discussion regarding the benefits of STSA experiences is that they are meant to open opportunities for participation to students who otherwise would not be able to or don't have the means to participate in mid-length or long-term experiences. It's clear from the sample that despite the efforts to broaden the circle of participation, there are still barriers, institutionally contextual or otherwise, where diverse groups of individuals remain underrepresented in STSA. This limitation prevents administrators and researchers from effectively determining if participation in STSA may benefit underrepresented groups more so than their well-represented counterparts. This thesis calls for Moon Crest College and all institutions that sponsor

international programming to continue to improve their efforts to decrease barriers of access that prevent underrepresented students from participating in education abroad experiences.

Recommendations for Future Research

There are several recommendations for future research or for expanding what is known about this area of research. Given that this population of schools is underrepresented in current research, it is recommended that smaller schools in the United States be researched in more depth and compared to one another. The challenge of cross-sectional studies across these institutions is that smaller schools are unique in their own right; every small school has a distinctive identity that makes a comparison to one another challenging without considering their identities (Astin, 1999). Furthermore, smaller institutions may have limited resources and may not have the time or resources to commit to research. When asked about participating in this study, one institution that was not included in this study mentioned that while they were "interested in this project, we're unable to participate due to capacity and resource limitations at that institution." While these complications make working with a larger group of institutions challenging, it is nevertheless an area of higher education that warrants further research.

Additionally, this study looked at the impact of participation in STSA programming and overall retention at Moon Crest College. One variable not considered in this study was whether participation in STSA programming leads to participation in more extended types of programming such as a semester or academic year programming. While the sample from Moon Crest College eliminated 217 students from the STSA sample because they participated in more than one STSA experience, information was not collected regarding which students, if any, participated in STSA and a more extended experience. This group may be beneficial for researchers looking to investigate motivations for participation in international experiences and if

short-term participation is a launching point, academic or otherwise, for more extended global engagement.

Furthermore, the focus of this study was only on international programming and its institutional impact. In the United States, many short-term programs also include different forms of domestic programming, such as courses on-campus or programs that integrate travel components that are not international. Lane et al. (2016) discusses the value of these programs in that "significant off-campus domestic study away experiences have been shown to be a transformative active learning environment for students to achieve similar learning outcomes as study abroad programs" (p. 196). Studies such as Lane et al. (2016) imply additional benefits to participation in short-term programs that are domestic with no international component. Including these programs in a future study into this topic is an area of future research that should be explored.

Lastly, the type of programming offered at Moon Crest College is a small sampling of the models of international programming at American HEIs. While Moon Crest College has operated several programs through different scheduling designs, many institutions have committed to one type of short-term program model, such as an institutionally integrated January Term, Maymester, or integrated programming model. While the sample presented by Moon Crest College constitutes representation from several different short-term models, the results of this study may be different for an institution that has integrated a defined short-term period for multiple academic cycles. It is encouraged for scholars interested in this topic to investigate institutions that have long integrated defined periods of STSA to analyze whether the results of this study hold for those types of institutions.

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Appendix A.

Letter to Prospective Subjects

Dear [REDACTED],

My name is Robert J. Van Pelt; I am a second-year master's student in International Higher Education at Boston College. I hope this message finds you and your office well.

I am reaching out to your institution to see if you would be interested in participating in a research project that I am conducting as part of my thesis, which I will complete under the supervision of faculty in the Center for International Higher Education at Boston College. My thesis is a quantitative research study investigating the relationship between short-term study abroad programming participation and institutional retention/graduation rates. I have identified [REDACTED] as a potential candidate for this study, and so I am reaching out today to see if this is something you would be interested in contributing to.

As a professional who has worked in the study abroad office of a small institution, I understand the challenges that many small school offices have faced over the last several years. The changing dynamics of the higher education market as well as the challenges that small institutions have faced are tremendous. In my professional experience, I have seen many institutions adopt defined periods of short-term international study as a means of diversifying themselves in a crowded educational marketplace. My hope is that your participation in this study would give better-clarifying information to professionals who are considering adopting defined short-term experiential learning opportunities as part of their academic offerings.

At this time, we are simply trying to identify interested institutions, so there is no commitment implied in your response. We are also trying to gauge what is feasible, given what data exist at the institutions involved. To that end, it would be very helpful if you could let me know if your institution might be interested in participating – and, if so, what kind of data you might be able to share with us (e.g., anonymized student data for the student population and/or anonymized data pertaining only to study abroad students). Once we have a sense of what institutional sample (and what data sources) we are working with, we will be able to finalize our methodology and then share further details about the specifics of participation in the study.

Thank you in advance for your consideration and support of this important work. If you would like to set up a Zoom call or a Skype meeting to discuss this opportunity or ask questions, please let me know.

Sincerely,

Robert J. Van Pelt

Appendix B

Transcript of Letter Confirming Participation in Study, Moon Crest College

Dear Robert,

Based on the preliminary IRB information you provided me in an earlier email, [REDACTED] will provide de-identified data on a subset of students after your thesis committee has approved your research design, and the Boston College IRB has approved the overall project. Please send a copy of the IRB approval from Boston College to me as soon as you receive it for our records. I will coordinate with [REDACTED] for the data sharing once your project is approved. Should you need any additional information, please contact me.

Best of luck with your research.

Sincerely,
[REDACTED]

Appendix C.

Transcript of Data Request Letter, Moon Crest College

Good evening [REDACTED],

Thank you so much for your assistance and confirmation that you will be participating in this study. With your support, I am happy to share with you today that my application to Boston College's Institutional Review Board has been approved and that I have been given permission to move forward with my study! Thank you again for your support of my project and for getting this off the ground! [REDACTED], as requested, I've included a copy of my approved Boston College IRB application for your records.

Since we've already gone through the formalities of pre-approval, I would like to move forward with formally requesting data from [REDACTED] as part of the study. As mentioned in the completed IRB application, this is a quantitative study that examines the relationship between participation in short-term study abroad experiences and retention at small institutions in the United States. This study will seek to see if there is a quantitative relationship between participation and retention in these institutions. In this study, we are seeking to answer three specific questions.

R1. Do students at small institutions that participate in short-term study abroad experiences retain to their institutions at a higher rate than students that don't participate in short-term study abroad experiences?

R2. Do students at small institutions that participate in short-term study abroad experiences complete their degrees at a faster rate than students that don't participate in short-term study abroad experiences.

To answer these questions, we will be running a binary logistic regression for R1 and multilinear regressions for questions R2. These regressions will be run digitally through the IBM SPSS software package as described in my IRB application. I believe I've mentioned this independently to both of you, but we will obviously share the results of this project with you when the analysis has been completed. The final copy of this project is due on April 1st, so anytime after that works for me to go over the results and implications of this study is fine with me. We can work out a time at a later date.

To run our regressions, we're requesting a digital spreadsheet with information for the classes of students that entered [REDACTED] in 2012, 2013, 2014, and 2015. For these classes, we are asking that you provide de-identified information for the following variables.

- Gender
- Race/Ethnicity
- First-Generation College Student Status (Is this student a first-generation college student?)

- International Student Status (Is this student an international student?)
- Traditional Student Status (In the case of [REDACTED], is this student a traditional student or non-traditional student?)
- Pell-Grant Eligibility Status (Is this student eligible to receive a federal Pell grant?)*
- Graduation Status (Did this student graduate from [REDACTED]?)
- Time-to-Degree Completion (How long did this student take to graduate from when they entered the college, to when they graduated?)**
- Short-Term Study Abroad Participation: (Did this student participate in a short-term study abroad program that is eight weeks or less?)***

*We are just recording eligibility status and not whether or not students applied/accepted other forms of financial aid.

**This variable is only if the student graduated from [REDACTED].

**In this study, there is no delineation between participation in faculty-led or affiliate/external programs. For students with multiple international experiences, please respond "yes" once regardless of the number of experiences they participated in. For students that participated only in domestic short-term programs ([REDACTED]) only, please group them into "No." If the student participated in both domestic and international programs, please group them into "yes" once, regardless of the number of experiences they participated in.

I understand that collecting this information is going to take some time to put together. I'm happy to have a conversation over zoom or over the phone if you have any questions about the information I'm requesting. Once again, I greatly appreciate the time and energy that you're putting in to help my project come together. If there is anything I can do in the meantime to assist in getting data, please let me know.

Thank you again in advance for your help.

Sincerely,

Robert J. Van Pelt