

THE RELATIONSHIP BETWEEN STUDENT ACADEMIC ENGAGEMENT AND ALUMNI
GIVING AT A PUBLIC, STATE FLAGSHIP UNIVERSITY

By

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ABSTRACT

The strategic pursuit of procuring private donations for colleges and universities is not a new endeavor for these institutions; however, as a result of the challenging financial landscape facing public higher education, administrators at these institutions have been devoting more time and resources towards their fundraising efforts. A cursory review of the literature on higher education fundraising over the past two decades also reveals an increased number of studies published on this topic.

While numerous studies on alumni gift-giving have identified a subset of reliable predictive characteristics, significant gaps for explaining this phenomenon still exist. One area, or gap, within the literature that has yet to be explored is the relationship between an alumna/us' academic experience as an undergraduate and their gift-giving behavior. Several studies have identified a relationship between academic satisfaction and alumni giving (Gaier, 2005; Clotfelter, 2003; Mosser, 1993); however, neither study set out to measure the levels of engagement or experiences they may have had in specific academic activities. Therefore, in an effort to contribute to the field of alumni giving, this study set out to measure the relationship between student academic engagement and alumni gift-giving behavior.

The findings from this research identified a relationship to exist between student academic engagement and an alumna/us' decision to donate. Specifically, the results showed that undergraduates who were challenged by their alma mater, interacted with their respective faculty members, and were provided with the institutional support they needed to accomplish their academic goals, were more likely to donate back to their alma mater. These findings correspond with the literature that satisfaction from one's undergraduate experiences serves as a foundation of inclination for alumni to financially contribute to the university (Gaier, 2005). Specifically,

this research helped bridge a gap in the literature by identifying specific areas within the academic experience that may lead to an alumna/us' overall satisfaction with their college experience. Although the relationship between academic engagement and alumni giving may not have been as robust as originally hoped, the findings were conclusive enough to contribute to the research literature and necessitate further research into other areas of student engagement and alumni giving.

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CHAPTER 1: INTRODUCTION

Context of the Study

Since the turn of the 19th century, private support for public institutions of higher education has become an important component for advancing the mission of American colleges and universities. This is especially true for those public colleges and universities that have aspired to maintain or increase their status within the stratification of the higher education system. Today, however, the importance of private support has evolved and is no longer utilized only as a means of institutional advancement but is now viewed as a means of institutional sustainability.

Public colleges and universities' emergent need for attaining private support as a revenue stream is primarily attributed to the continual decrease in the level of state appropriations. Since 1978, state appropriations for higher education have steadily declined, and scholars forecast that this trend will continue far into the future (Mortenson, 2004). Between 1976–77 and 2000–01, public education's share of state discretionary expenditures fell by 4% and, within public education's total funding, the proportional share allocated to higher education fell by 6% (McLendon, Hearn, & Mokher, 2009; Rizzo, 2004). More recently, total fiscal state support in FY13 is 10.8% lower than total state fiscal support in fiscal year 2007-2008 (FY08), when appropriations decisions were made just before the economic downturn in 2008 (SHEEO, 2013). Public higher education in nearly every state has faced unprecedented challenges due to competing state budget demands, state tax increase limitations, and growing state structural deficits between revenues and expenses (Hovey, 1999; McLendon, Hearn, & Mokher, 2009; Tandberg, 2010).

Another reason for this need to attain private donations, can be attributed to the rising costs of higher education in recent years. According to Toutkoushian (2006) the decline in state appropriations is associated with the rising costs of educating students. Multiple reasons can be attributed to the rising costs of education students. For example, a report by the American Association of University Professors (AAUP) attributes the escalation to the “rising cost of benefits...and the growing expenses of financial aid and information technology” (pg. 1, Wilson, 2008). Specifically, rising costs can also be attributed to higher education institutions’ effort to improve educational quality resulting in more and more funds being invested in facilities, faculty, research, students and instructional technology (Archibald and Feldman, 2012; Ehrenberg, 2010; Ehrenberg, 2002).

Ehrenberg (2010) contends that a primary contributor to the increased costs is the desire for public colleges and universities to remain competitive in the public rankings system. Most public colleges and universities raised their tuition roughly as fast as the elite private colleges because in the higher education market, tuition and fees are being regarded as an indicator of the college’s quality. Newman et al. (2004) reaffirm this notion, stating that in order to compete for top students, public institutions are participating in a facilities “arms race,” that is, “offering amenities seemingly far removed from the traditional college experience, such as elaborate fitness centers, luxurious student unions, and other costly adaptations” (pg. 13). While these “costs” are negatively viewed by some critics as having no direct contribution to students’ persistence in and graduation from college, Ehrenberg and Douglas (2012) found the opposite to be true. Their 2012 study identified these expenditures as positively influencing both first-year persistence rates and graduation rates of undergraduate students at 4-year academic institutions.

The confluence of rising costs to educate students and decreasing state support has placed universities in a position to continually raise student tuition and fees. From 1978 to 2011, tuition and fees in higher education have, on average, increased by 7.6% each year, 3.8% higher than the Consumer Price Index of all items, and 3.0% higher than the rate of service price increase (Archibald and Feldman, 2011). As a result, these increases have transferred the costs of higher education to students and their families making affordability, access, and accountability major issues within the industry (Alexander, 2001; Hossler, Lund, Ramin, Westfal, & Irish, 1997).

In an effort to compensate for the decrease in state appropriations and increase in educational costs, institutions are placing more emphasis upon alternative non-tuition revenue sources as a means to sustain a competitive advantage amongst its peers. While there are several alternative non-tuition revenue sources that could be explored (e.g., research grants and various forms of commercial revenues), private giving continues to be a promising possibility.

Therefore, this study will look at alumni gift-giving behavior and determine if additional characteristics can be identified for explaining private donations from this population. More specifically, the purpose of this research is to explore the relationship between an alumna/us' level of academic engagement as an undergraduate and their subsequent gift-giving behavior.

Rationale for the Study

One reason for analyzing alumni giving can be attributed to the fact that the cost associated with raising private gifts is typically far lower than the dollars raised (Rooney, 1999). While the costs of generating gifts varies across institutions and types of gifts, a widely cited study by the Council for Advancement and Support of Education (1990) on the costs of fundraising per gift dollar raised by academic institutions found that the mean cost over all academic institutions was in the range of \$0.15 to \$0.17 s per dollar raised in the late 1980s

(CASE, 1990; Ehrenberg, 2011). Rooney's (1999) analyses accounted for additional variables not used by the CASE study (e.g. pro rata share of presidents and deans devoted to fundraising) and found fundraising costs to be much higher at approximately \$0.33 per dollar raised, which still qualifies as being a very efficient means for generating revenue. For example, Rooney (pg. 41) cites Steinberg's (1994) definition of the economic concept of optimal fundraising efforts as "the level of expenditure such that marginal costs equal marginal benefits." In other words, the development program should continue to invest more resources into fundraising efforts up to the point where it costs one dollar to raise one dollar.

Another reason for researching alumni giving is because higher education institutions possess a fundraising advantage over other non-profit organizations. Institutions of higher education perform multiple missions and engage multiple stakeholders who benefit by gaining access to the research, athletics, arts and students produced by the institution. To demonstrate the multiple stakeholders who donate to higher education institutions, the Council for Aide to Education's latest publication of their 2012 survey, Voluntary Support of Education (VSE) survey, revealed that organizations provided 56.3 percent of the overall gifts to higher education institutions. Alumni and non-alumni accounted for 43.6 percent. Devoting more fundraising resources towards its stakeholders and beneficiaries of the institutional mission has proven to be beneficial over the past 20 years.

During the FY1989 to FY2009 period, voluntary support to higher education institutions per student grew, on average, by about 2.3% a year in real terms (Council for Aide to Education, 2009). The most recent report by the Council for Aide to Education (2013) showed that private contributions to America's higher education institutions increased 9.0 percent to \$33.8 billion in 2013 (Council for Aide to Education, 2013). This was the highest recorded total in the history of

their annual Volunteer Support of Education (VSE) survey. Even when accounting for the economic downturn in 2008, the largest recession since WW II, the nearly \$34 million raised in 2013 was \$10.2 billion more than what that was donated in 2003 (\$23.6 billion) (VSE, 2004).

If private support from alumni is understood as being critical for offsetting the increased costs of higher education then continued research is needed for developing a greater understanding of alumni giving. While the goal of this research study is not to provide a comprehensive explanation for what inspires alumni to give to their alma mater, it is the goal of this research to examine a potentially critical aspect of this phenomenon: the relationship between student academic engagement and alumni giving.

Academic engagement and alumni giving

As stated earlier, one area that may significantly influence an alumna/us' gift-giving behavior is the academic experiences they had while undergraduates, specifically, the level or quality of effort devoted to academically or educationally purposeful activities. It is the hypothesis of this research study that a student's participation in educational activities may generate a greater emotional bond or affinity towards the institution and thereby positively influence the alumna/us' gift-giving behavior to their alma mater.

Sociological literature on charitable giving suggests that people give to causes and organizations that have meaning for them personally (Schervish and Havens, 1997). Thus, if an alumna/us was able to connect to the core mission of an higher educational by being a beneficiary of that mission, then a greater opportunity exists for the institution to generate a sense of personal meaning for the alumna/us. More specifically, satisfaction with one's undergraduate academic experience could induce feelings of gratitude or a desire to financially "give-back" to the institution. Clotfelter's (2003) study supports this notion, finding that the

donations that alumni made to their alma maters were highly correlated to their expressed satisfaction with their own college experiences and other measures of satisfaction with the institution. It is important to note that one of strongest correlations found between alumni satisfaction and alumni's giving was having had a faculty or staff member take interest in him or her during college. More on the role of student-faculty interaction as it relates to student engagement will be discussed later in the literature review portion of this study.

Based upon Clotfelter's (2003) findings, if an alumna/us attributes their decision to donate to their alma mater upon the satisfaction of the institution's ability to foster personal development and achieve the alumna/us' educational goals, then an opportunity exist to further the understanding of the relationship between student academic engagement and an alumni's inclination to donate to their alma mater.

Purpose and Significance of the Study

Numerous studies on alumni gift-giving have identified a subset of reliable predictive characteristics; however, significant gaps for explaining this phenomenon still exist. One area, or gap, within the literature that has yet to be explored is within the arena of alumni giving and its relationship with an alumna/us' academic experience as an undergraduate student, specifically, within the areas that comprise "academic experience."

Pascarella & Terenzini (1991) and Tinto (1993) identify two primary systems within the college experience: the academic system and the social system. The academic system contains the structured curricular activities and relationship with faculty and staff. The social system contains extracurricular activities and relationships with peers. As mentioned above, a thorough review of the literature on alumni giving reveals a majority of the studies on this topic have focused more on the comprehensive student experience, leaning heavily towards those variables

that fall under the social system (e.g. involvement in extra-curricular activities, Greek life, student based organizations, etc.) and very little focusing on the academic system. Because of the gap within the literature between undergraduate academic experiences and alumni gift-giving behavior, it is the goal of this study to further illuminate those areas within the academic system that may influence alumni giving.

The purpose of this study is to explore the relationship between the perceived level of academic engagement that alumni had while enrolled as undergraduate students at a public flagship Research I university in the Midwest region of the U.S., and measure the influence it has on their inclination to donate back to their alma mater. Specifically, this research seeks to answer the following research questions:

1. Is there a relationship between the selected academic engagement variables that alumni experienced while undergraduates and the donor status (donor vs. non-donor) of the University's alumni population?
2. Is there a relationship between the selected academic engagement variables that alumni experienced while undergraduate students and the level of financial contributions provided by alumni donors to the University?

The findings from this study can potentially assist researchers, university fundraisers, and university administrators in several ways. First, this research contributes to the body of literature on alumni giving by exploring the relationship that an undergraduates' academic experience has with their inclination to make a gift back to their alma mater. Several studies have explored whether college experience is related to giving; however, most of those studies applied a more comprehensive perspective of the undergraduate experience (Baker, 1998; Dugan, Mullin, and Siegfried, 2000; Miller and Casebeer, 1990; Taylor & Martin, 2001). Unfortunately when student

involvement has been included as a predictor, rarely has it produced any substantive findings pertaining to the level of students engaging in specific academic/curricular activities (Steeper, 2009).

One study identified a significant positive relationship between alumni involvement (their definition of involvement includes alumni giving) and academic experiences; however, it set out to answer questions pertaining to the level of satisfaction donors had with their undergraduate academic experiences (Gaier, 2005). As reaffirming as Gaier's (2005) research was, it is the position of the researcher of this study that those who donate back to their alma mater are naturally satisfied with the core aspect of the institutional mission devoted to helping its students learn; therefore, warranting the need to go beyond measuring alumni satisfaction and actually measure the level academic engagement that took place during their undergraduate experience. It is the goal of this research to further understand the relationship between the level of academic engagement that alumni experienced as undergraduates and their inclination to donate back to their alma mater.

This research can potentially aid university development offices housed within these institutions that have limited resources to raise support from their alumni. It is imperative that they strive to be strategic and efficient in determining who and how they will solicit alumni for private support. Most fundraising practices implemented by university development offices are anecdotally and experientially driven. Empirically determining how academically *engaged* an alumnus/na was as a student may provide another significant factor in determining whether or not they shall be identified as prospective donors.

Finally, this research study may potentially reinforce to university administrators the secondary benefit that student engagement can have on the long-term financial health of the

institution. While the ultimate goal for supporting student engagement is to increase overall student success, administrators may be more inclined to provide additional resources to this effort when a direct return on investment can be empirically demonstrated.

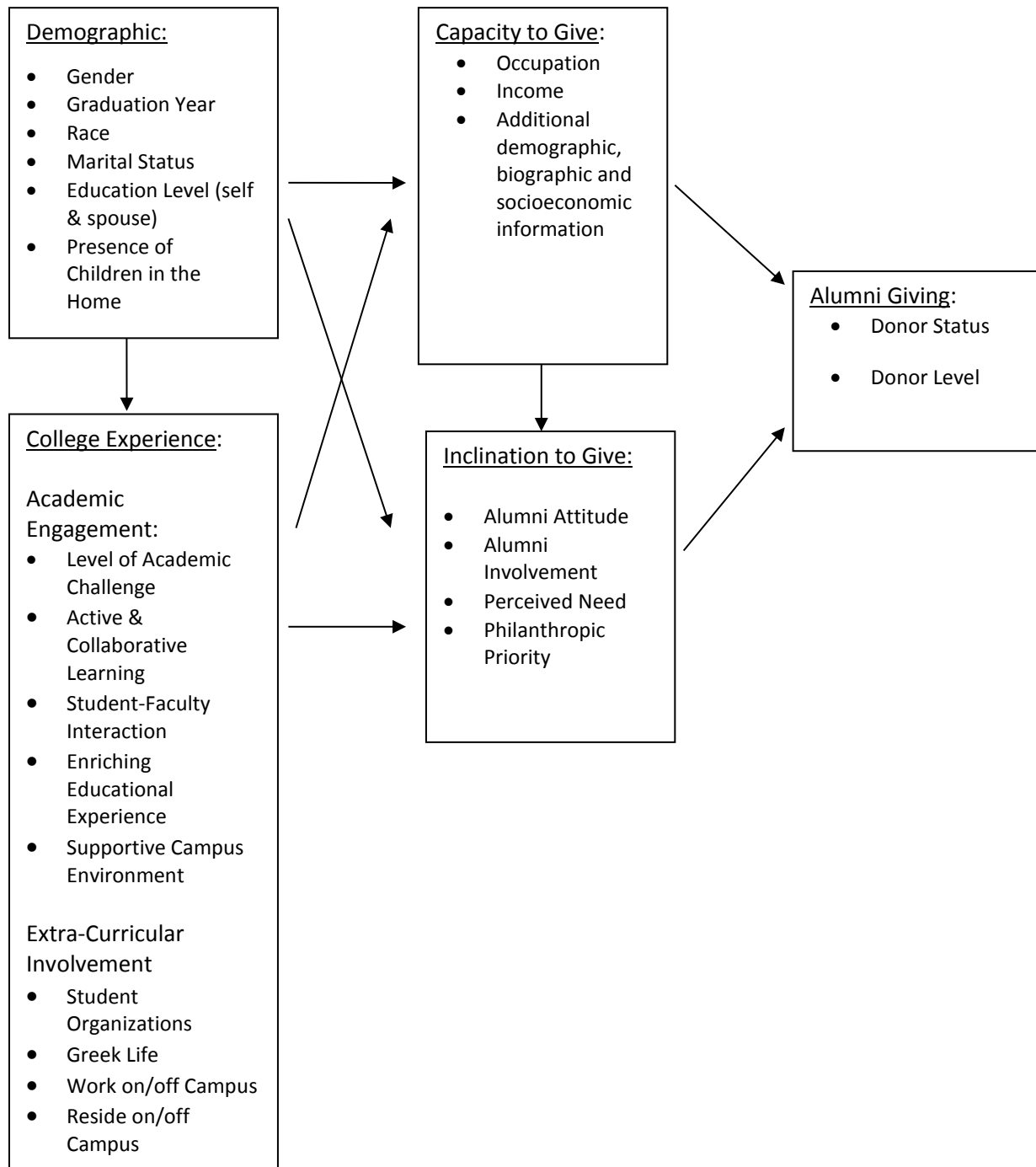
Conceptual Model for Student Engagement and Alumni Giving

To help organize the process for exploring the relationship between student academic engagement and alumni gift-giving behavior, an adapted version of was constructed to function as the study's conceptual framework. Additionally, Kuh's theory (2001) on student engagement was used to inform the study on identifying those measures that capture and define undergraduate academic engagement.

Following Volkwein and Parmely's (1999) theoretical alumni gift-giving model (explained more fully in Chapter 2) the model guiding this study assumes that giving is influenced by demographic characteristics, the college experiences, capacity to give and inclination to give. For this study the college experience is defined as engagement in academic activities, as defined by Kuh (2001), and extra-curricular activities.

Because this study is only focusing on the effects of undergraduate academic experiences on alumni giving, the variables comprising these categories or concepts are significantly fewer and slightly different from the Volkwein and Parmley (1999) model. While the variables differ, it is important to point out that all variables in the adapted conceptual model, other than the academic engagement variables, have been found to be significant in previous studies on alumni gift-giving behavior or studies on student engagement.

Fig 1. Conceptual Model of Academic Experience and Alumni Gift-Giving Behavior



Summary of the Study

The following chapter will provide a review of the relevant literature and an explanation of the theoretical framework used to guide the study. Specifically, Chapter 2 will provide an overview of the theories that support the study, followed by a brief historical overview of the history of philanthropy in American higher education and the public policies that have shaped philanthropic giving to non-profit organizations. Finally, the review will reference literature that has identified significant characteristics that positively influence alumni gift-giving behavior, specifically as it relates to undergraduate experiences.

Chapter 3 will provide the methodological approach for the study, which details the process for attaining the necessary data to help answer the fundamental questions of this study. Further detail will be provided on the sample population, research design, the survey instrument, data collection, data analysis, and study limitations.

The results of the quantitative analysis will be presented and discussed in Chapter 4. The final chapter, Chapter 5, will discuss the overall findings of the study, the implications the findings have on the current literature, as well as the limitations and recommendations for future research.

CHAPTER 2: LITERATURE REVIEW

Theoretical Framework and Relevant Literature

To help inform this study on the relationship between undergraduate academic engagement and alumni gift-giving behaviors, this chapter set out to establish a contextual and theoretical framework by reviewing three primary areas of the literature. First, to provide a historical context, this chapter reviews the literature as it relates to the history of philanthropy in American higher education along with the public policies that have shaped charitable giving in the United States. Second, to provide a theoretical framework, this chapter describes Volkwein and Parmley's (1999) *theoretical model on alumni gift-giving behavior* followed by Kuh's theory (2001) on student engagement. Third, Volkwein and Parmley's (1999) theoretical model of alumni gift-giving will also be employed as a means for organizing the literature that has identified multiple variables as being significant predictors of alumni giving.

Theoretical Framework

This study employs two primary theoretical concepts: *the theoretical model on alumni gift-giving behavior* (Volkwein and Parmley, 1999) and student engagement theory (Kuh, 2001). From a macro perspective, Volkwein and Parmley (1999) offer the only theoretical model identified in the literature that details the potential relationships between four constructs and alumni giving, these are: select demographic characteristics, college experience, and capacity and inclinations to give. From a micro perspective, it is within the *college experience* construct that this study will employ Kuh's (2001) work on student engagement. First this section will review Volkwein and Parmley's work (1999) followed Kuh's (2001) work on student engagement.

Theoretical Model on Alumni Gift-Giving Behavior

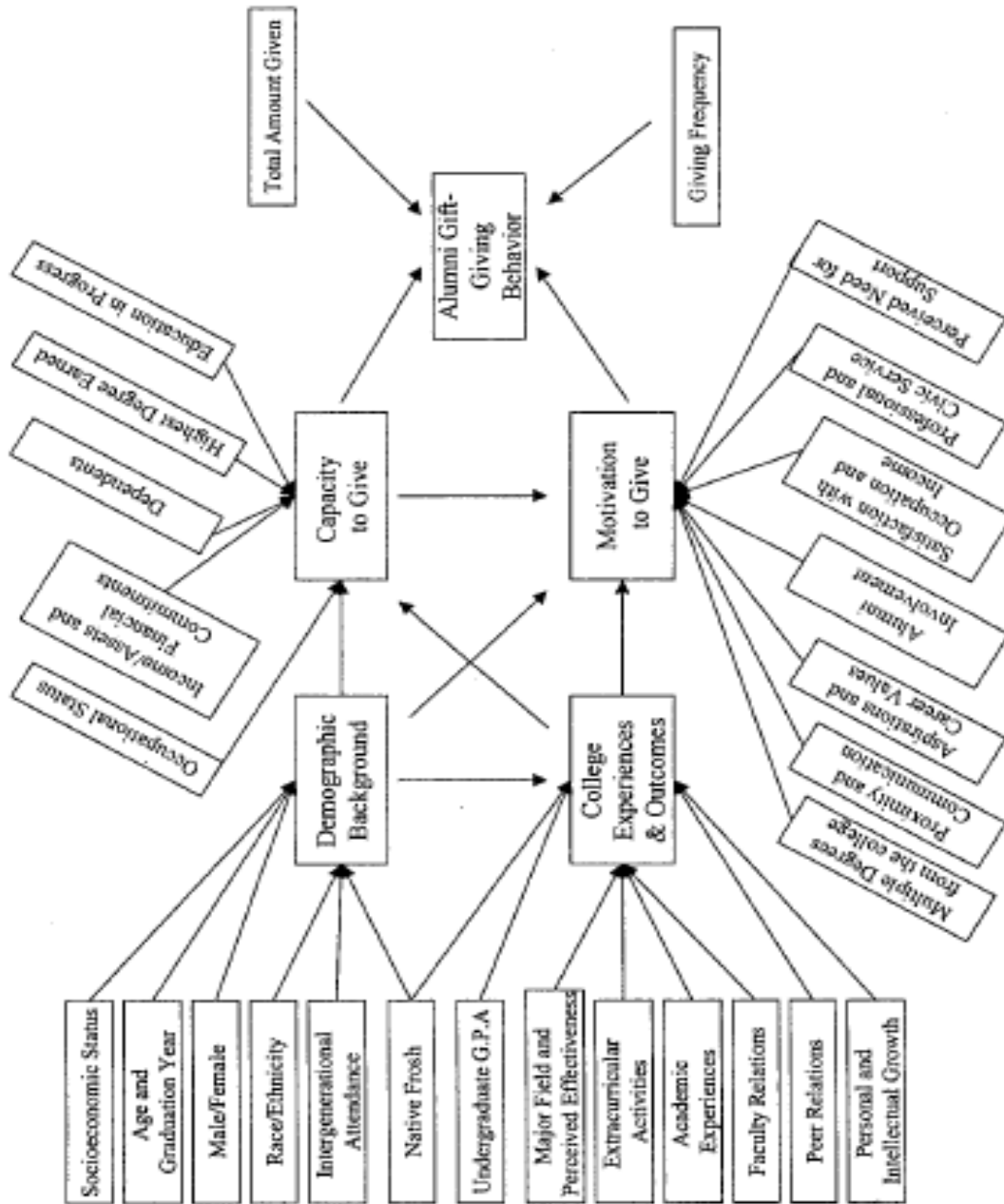
Building on the work of Paton (1986) and Connolly & Blanchette (1986), Volkwein et al. (1989) built a theoretical model of alumni gift-giving behavior based on the capacity and motivation to give components. As Volkwein and Parmley (1999) state,

Donor behavior is viewed as a function of motivation and capacity. However, the attitudes and values that produce donor inclination and the economic attainment and achievements that produce capacity are themselves products of the backgrounds and collegiate experiences of alumni (pg. 60).

Volkwein and Parmley's (1999) *Theoretical Model of Alumni Gift Giving Behavior*, combines concepts from microeconomic principles and the market of higher education, as well as from the individual college outcomes literature. The model posits that alumni giving is determined by demographic characteristics (socioeconomic status, age, gender, race), college experiences (undergraduate GPA, major, academic experiences, faculty relations, peer relations, intellectual growth), capacity to give (occupation, income assets, dependents, highest degree earned), and inclination to give (number of degrees from the institution, proximity, appreciation and career values, alumni involvement, satisfaction with occupation, perceived institutional need).

Fig. 2 provides visual representation of Volkwein and Parmley's (1999) depiction of the potential relationship that exist between selected undergraduate and alumni characteristics and alumni financial giving at a public research university.

Fig. 2



Conceptually, it is important to note that their model acknowledges the interaction that *demographic background* and *college experiences* have with influencing an alumna/us' gift-giving behavior. It is also important to note that the flow of their chart places *Capacity to Give* and *Motivation to Give* as the primary determinants of alumni-gift giving behavior. Even though *Capacity* and *Motivation* are considered primary determinants, it is still critical to test the level of influence that factors within the category of *college experiences* have on an alumna/us' decision to financially donate to their alma mater.

Since the primary focus of this study on alumni giving is within the category of “*college experiences*”, this study will next review student engagement theory as a means to guide the study's inquiry for measuring the alumni population's level academic engagement as undergraduates. Before this section transition's to student engagement theory, it is important to note that the adapted conceptual model on alumni giving will later be employed as a guide to organize the literature review portion of this study.

Student Engagement Theory

Since this study's primary focus is within the *College Experience* category in Volkwein and Parmely's Theory (1999), specifically as it relates to the interaction between student academic engagement and alumni gift-giving behavior, it will be important to establish a theoretical framework as well as a working definition.

Over the years a variety of terms have been commonly used to describe the student college experience, terms such as: student integration, student involvement and student engagement. Many times these terms have come to be used interchangeably as well. Wolf-Wendel, Ward, and Kinzie, (2009) call attention to the origins of these terms, noting that they are

the products of established theories and constructs, developed for the purpose of defining student development and success. Wolf-Wendel et al (2009) also reference the fact that these terms have evolved and, when improperly used, present challenges within the higher education literature. Researcher, and originator of student engagement theory, George Kuh, acknowledges that the term ‘student engagement’ has evolved, and in his (2009) paper makes an effort to clearly define the term as: “the time and effort students devote to activities that are empirically linked to desired outcomes of college and what institutions do to induce students to participate in these activities” (pg. 683). Specifically, Kuh (2009) emphasizes two major aspects of student engagement: in-class (or academic) engagement and out-of-class engagement in educationally relevant (or co-curricular) activities, both of which are important to student success. Moving forward, when this study references student engagement, it will use Kuh’s latest definition that stresses educationally purposeful activities and excludes extra-curricular involvement (2009). It is also important to note that as this study moves forward it will use the term student engagement as well as student academic engagement interchangeably.

Currently, a majority of the research that has studied the relationship between undergraduate experiences and alumni gift-giving behavior utilized variables that primarily fall under the ‘social system’ (Haddad, 1986; Shadoian, 1989; Martin, 1993; Thomas & Smart, 2005; Steeper, 2009). The social system is one of Pascarella & Terenzini’s (1991) and Tinto’s (1993) two primary systems defined as being within the college experience: the other is the academic system. The academic system contains the structured curricular activities and relationship with faculty and staff. The social system contains extracurricular activities and relationships with peers. As this section continues to establish a context for the study, the primary areas to be measured for this study fall within the ‘academic system’; specifically, those areas that measure

the quality and level of educational purposeful activities for undergraduate students – student engagement.

The origins of student engagement can be traced to several key concepts found in the literature on effective educational practices for higher educational learning. Those primary concepts are: student involvement (Astin's, 1985), student-faculty interaction (Pascarella and Terenzini, 1991), quality of student-effort (Pace, 1984), and student and academic social integration (Spady, 1971; Tinto, 1975; Tinto, 1993). While these concepts are significant to developing the student engagement construct, it is Chickering and Gamson's (1987) publication "Seven Principles for Effective Practice in Undergraduate Education" that can be identified as having the most direct and significant influence on its student engagement's formation. Chickering and Gamson's (1987) work focused on the level of academic challenge, time spent on task, and involvement in other educationally purposeful activities that directly influence the quality of students' learning as well as their overall educational experience (Chickering & Gamson, 1987; Kuh, 2001).

Building on Chickering and Gamson's (1987) historic publication, Kuh (2001) identified indices of effective educational practice that can serve as a valuable proxy for quality in undergraduate education, particularly in allowing colleges and universities the opportunity to take immediate action to improve areas of student engagement that need attention. This next section will review those indices as well as the applied theoretical aspects of student engagement; specifically as it relates to the development variables used to measure student engagement levels.

National Survey of Student Engagement (NSSE). The NSSE goes beyond traditional measures of engagement and was created with three core purposes in mind (Kuh, 2009). The

first, and most important purpose was to provide institutions with actionable data that could be used to improve student's educational experiences. The second purpose was to uncover and document the most effective educational practices in order to duplicate those in other institutions. The last purpose was to generate public advocacy for the use of empirically-derived indicators of collegiate quality. Altogether, NSSE was developed to improve institutional practices, document good practices already in place, and to seek public advocacy for the use of empirical conceptions of collegiate quality.

By identifying a need in higher education for valid, credible and usable information about students' undergraduate experience, NSSE also functions as an alternative to "reputation and resource-based" rankings (NSSE, 2013). The benefits of NSSE's findings assist administrators, faculty members, and others to see how their students compare to those at institutions with similar missions and academic programs. Ultimately NSSE was designed to assess the extent to which students are engaged in educationally purposeful activities that contribute to their learning and success during college (Kuh et al., 2001, Pike, 2004).

NSSE does not provide evidence of the quality of active and collaborative learning; rather it quantifies the frequency that students indicate they engage in these activities (Kuh, 2007). Even though NSSE does not directly measure learning outcomes, it does allow for benchmarking between other participating comprehensive institutions (Kuh, 2003) and provides a way of thinking about institution quality (Kuh, 2001).

NSSE Instrument. Because the survey developed for this study was based on NSSE, this section describes the NSSE Instrument in some detail. The NSSE Instrument, *The College Student Report*, was designed by national assessment experts to focus squarely on teaching and

the level that students are engaged in empirically derived, effective educational practices and how they benefit from their college experiences (NSSE, 2000; Kuh, 2001).

The College Student Report, solicits information from students concerning the frequency in which they engage in specific activities representative of good educational practices. First-year students are asked to indicate whether they have done or plan to do things such as attending co-curricular events and using the institution's resources. In addition, the instrument assesses time spent doing activities outside of the classroom including the number of hours devoted to school work and employment status. The survey also provides students with the opportunity to record their perceptions of the college environment associated with achievement, satisfaction, and persistence including an evaluation of what support services the institution has to offer. The survey concludes with a set of questions designed to estimate students' educational and personal growth since they started college.

Kuh (2003) stresses the importance of institutions using the National Survey for Student Engagement (NSSE) benchmarks for effective educational practices. The survey's 42-items are divided among five benchmarks: 1) Level of Academic Challenge (LAC), 2) Active and Collaborative Learning (ACL), 3) Student-Faculty Interaction (SFI), 4) Enriching Educational Experiences (EEE), and 5) Supportive Campus Environments (SCE) (NSSE, 2010; Kuh, 2003).

LAC According to Kuh (2009), *level of academic challenge* includes items that assess student perceptions of how challenging an institutions intellectual and creative work is. The premise here is that setting high expectations for student performance and emphasizing the importance of academic effort will promote high levels of student achievement. An example item assesses if students have "course work emphasizing application of theories or concepts to practical problems or in new situations."

ACL Active and collaborative learning describes student behaviors and whether or not they are actively involved in their learning either individually or working with others. Students tend to learn more when they are deeply involved in their studies. Collaborating with others during difficult projects prepares students for the problems they will face during and after college. A sample item assesses whether or not a student “asked questions in class or contributed to class discussion.”

SFI Student faculty interaction describes student and faculty behaviors, and summarizes how often students work with faculty members inside and outside the classroom. Faculty have much to teach their students and act as mentors and role models to encourage continuous, life-long learning. A sample item determines if students “talked about career plans with a faculty member or advisor.”

EEE Enriching educational experience include items that assess if students behaviors, or involvement, in complementary learning opportunities. Such opportunities provide a chance to integrate and apply knowledge learned in a classroom setting. A sample item examines whether or not students participate in a “practicum, internship, field experience, co-op experience or clinical assignment.”

SCE Supportive campus environment assesses whether or not students perceive their institution as committed to their success. When a student feels that their institution is committed to their success, they will perform better and be more satisfied with their collegiate experience. A sample item asks students if the campus environment provides the support you need to help you succeed academically.”

The five NSSE benchmarks were employed to help conceptually guide the questions designed to measure student academic engagement with a focus on alumni gift-giving behavior.

While the NSSE instrument is being used to inform this study on ways to measure student engagement, it is important to note that NSSE is not without its critiques.

Specifically, reports have been made that NSSE fails to meet basic standards for reliability and validity (Porter, 2009). Porter contends that NSSE results are inaccurate due to students' self-reporting. He claims that students do not necessarily know what certain items mean when they are asked about specific experiences and/or practices. Additionally, Porter posits that students do not accurately report information/frequency about their own behaviors over the period of time because the time frame ("current academic year") is too long and students subsequently misrepresent the frequency of their behavior.

Consideration of these critiques was important when analyzing the adapted survey instrument for this study. While the survey was designed for older graduates and not current students, the critiques were still relevant as it was important to consider specific terminology used in the instrument as well as the period of time that is requested of the participants to reflect upon before responding.

This next section will provide an historical overview of the key philanthropic events and legislative policies that have had an impact on the financial landscape of American higher education.

History of Philanthropy in U.S. Higher Education

Philanthropic support for institutions of higher education in America is not new to the landscape and its origins can be traced back to the establishment of the first college in America. John Harvard's bequest of support for the library in 1636 initiated what would become a tradition of giving to America's new system of higher education (Curti & Nash, 1965). As the colonial colleges were established throughout the late 17th and 18th centuries, these private

institutions sought to take part in the colonial competition and differentiate themselves, usually based on religious denomination or local need, in order to gain the necessary support to grow and prosper as a college (Thelin, 2004).

It wasn't until the 19th century that the landscape of higher education began to see institutions established through the efforts of public support. Founded in 1819 by Thomas Jefferson, the University of Virginia could arguably be considered the purest state institution in terms of its intended charter as a public enterprise and nondenominational affiliations. It was through this example that state-supported institutions began to exist in a host of states. According to Lucas (1994), "Efforts to found nonsectarian state agencies of higher learning had begun well before the Civil War, institutions such as: Georgia, Ohio, Tennessee, North Carolina, Maryland, South Carolina and Kentucky" (p. 146). The help of the Morrill Land-Grant of 1862 mandated a mechanism to provide state aide to public education, this too served as a catalyst for establishing state based public universities (Veysey, 1965). However, similar to their private counterparts, many of the state assisted institutions during this time suffered financially. Public institutions struggled with poor enrollments and lacked the support they needed from state legislators (Lucas, 1994). Therefore, in an effort to survive during these challenging times public and private colleges needed additional support.

During the late 19th century and early 20th centuries public universities found an opportunity to establish endowments as a means of supplementing the funding they received from state support. A specific example of this took place in 1891, when 13 alumni from the University of Kansas who formed the University of Kansas Endowment Association aspired to purchase private land for the establishment of an athletics field without control from the state treasurer. Today, the KU Endowment Association is recognized as the United States first

foundation for a public university

(<http://www.kuendowment.org/s/1312/endowment/index.aspx?sid=1312&gid=1&pgid=572>).

As alumni support continued to grow during the first half of the twentieth century, it was not until after World War II that colleges and universities began hiring fund-raising professionals (Cook & Lasher, 1996). Alumni financial support for higher education grew as organized alumni groups evolved more fully. By the mid-to-late 1950s, university endowments were not providing sufficient growth to meet the needs of most institutions, and higher education leaders turned to alumni to boost endowment yield through support of the alumni fund (Curti & Nash, 1965). Then in 1958, the Greenbriar Report was issued, essentially describing a new term, “institutional advancement,” which integrated public relations, development and alumni relations under one umbrella (Cook & Lasher, 1996). This organizational focus allowed for a more concerted focus to involve alumni with the developments as well as financial needs of the institution.

Since the late 1950s, alumni have remained one of the top three sources of private giving to higher education (CAE, 2013). In 1979, college and university alumni overtook foundations and non-alumni individuals to become the largest source of private gifts to higher education. The growth of alumni support continued through the 1990s, and was characterized as the decade of mega gifts, recording a total of 27 institutions receiving gifts of \$100 million and above (Hanson, 2000). Giving doubled from \$10.2 billion in 1990-1991 to \$20.4 billion in 1998-1999 (Connor, 2005; Lively, 2000).

In 2002, private contribution to higher education witnessed its first decline in fifteen years, dropping 1.2 percent from \$24.2 billion to \$23.4 billion (Council for Aid to Education, 2002). After 2002, private support for higher education witnessed consecutive growth for five years and in 2008, charitable donations to higher education rose to a record level at \$31.6 billion

(Council for Aid to Education, 2009). Unfortunately, the largest recession since WWII hit the global economy causing support to in 2009, giving fell to \$27.85 billion. After the decline in 2009, private support was quick to rebound, and in four years the total private contributions reached \$33.8 billion making it the highest since 2008, and the highest recorded total in the history of private support for higher education (CAE, 2014).

Traditionally, alumni have been considered the largest donor group to higher education (CAE, 2005); however, over the past nine years alumni have been surpassed by support from private foundations. Private foundations make up approximately 30% of total private support while donations from alumni can account for approximately 26.6% of total giving.

Unfortunately, not only has foundation support supplanted alumni giving, alumni participation has also decreased. Even though total contributions have been on the rise, over the past 20 years the percentage of alumni donors has decreased by a little over 10 percent (CAE, 2014).

As indicated by this historical overview, the role that alumni support plays in the financing institutions of higher education is not new; however, more recently it has been integral in offsetting the decline in state support. Concurrently, the growing trends in alumni donations reveal that institutions have been placing more emphasis on procuring alumni donations.

Therefore, while alumni giving appears to be in good standing, if higher education institutions continue placing an emphasis attaining private support from its alumni population then more research is needed for in order to develop a more efficient and effective method for identifying and those prospective alumni donors.

Public policy's effects on philanthropy in the United States. A review of the historical aspects of philanthropy in higher education needs to acknowledge that throughout the 20th century federal and state governing bodies played a significant role in influencing an alumna/us'

decision to give to their alma mater. Specifically, this role can be seen through the implementation of various tax policies as well as legislative decisions that influence the amount of tax dollars being allocated to public higher education institutions.

There were two significant tax policies passed in the early 20th century that helped establish an avenue for individuals to support non-profit organizations. In 1913, a federal income tax was implemented that exempted non-profits (Hopkins, 1990; Kelly, 1995). This law along with the Revenue Act of 1917 established a federal tax code that provided special treatment to most nonprofit organizations, including exemption from corporate income taxation. For a large subset of nonprofit organizations e.g. college/university endowments, this allowed individuals (as well as corporations and estates) a tax deduction from their income tax for the donations they make to these non-profit organizations. Clotfelter (1990) states that, “the charitable deduction in the income tax, by virtue of the preponderant importance of donations by individuals, is the most important of these deductions” (pg. 2). Kelly (1998) affirms the role that tax policy plays in personal philanthropy by stating that “contrary to fund-raising lore, the tax deductibility of gifts is vital to sustaining America’s philanthropic tradition” (pg. 48). Between 1917 and 1969, the only substantive changes in the law were to increase incentives for giving. Specifically, in 1936 the federal government permitted corporations to deduct charitable donations from income.

Regarding the allocation of tax dollars, in the mid-20th century local, state, and federal governing bodies realized the public and private benefits of higher education and began increasing tax allocations for the funding of higher education. Public colleges and universities greatly benefited from this shift in funding but unfortunately this type of support wouldn’t be sustained through latter parts of the 20th century. Towards the end of the 20th century and on into the early parts of the 21st century the trend of declining federal and state support has

presented today's public universities with a compelling need to generate private voluntary support (Kelly, 1998).

Numerous studies in the broader literature on charitable giving show that donations are quite sensitive to subsidization by the tax code (Auten, Sieg, & Clotfelter, 2002; Clotfelter, 1985; Gruber, 2004). Unfortunately, only a small part of the charitable giving literature in the U.S. has been devoted to alumni giving (Holmes, 2009). Studies that have focused on the effect that tax policies have on alumni giving take a more economic approach by exploring the price elasticity of gifts. Price elasticity of giving is a measure of how responsive giving is to a change in its cost. It assesses the degree to which people give more or less depending on how expensive the donations are in relation to their charitable tax deduction (Cordes, 2001). One study (Holmes, 2009) that reviewed the price elasticity of alumni giving found that charitable tax deductions are correlated with higher giving, but only among the wealthiest of its citizens (those most likely to itemize and to face the highest marginal tax rates).

As this study moves forward in reviewing the literature on the characteristics of donating alumni it was important to have reviewed the historical and contextual foundation in which alumni giving is embedded. While there are numerous variables internal to the institutional environment there are also larger external variables that significantly shape or influence alumni giving. Therefore taking a cursory look at the historical trends of alumni giving as well as the economic policies that shape overall charitable behavior in the United States is critical for conceptualizing and grasping the nuances of alumni gift-giving behavior.

Research on Alumni Giving Characteristics

Over the past three decades, researchers have studied and analyzed a wide array of variables through various theoretical perspectives to identify the most important factors for

predicting alumni giving to their alma mater. Many of these factors can be categorized into the following areas: individual donor characteristics, fundraising practices, external environment, and institutional characteristics (Gunsalus, 2004). However, for the sake of compatibility to the purposes of this study, this section of the literature review will organize the variables according to the categories determined by Volkwein and Parmley's (1999) alumni gift-giving behavior model. Those categories are: Demographic Characteristics, College Experiences & Educational Outcomes, Capacity to Give, and Motivation to Give.

While it is important to review the factors that have been identified as significant predictors in previous studies on alumni gift-giving behavior, it is not the intention of this study to test all the variables. Therefore not all the variables listed below will be used in the analyses portion of this study. Finally, it is also important to note that Volkwein's and Parmely's usage of the construct "Motivation to Give" is theoretically untested and because "Motivation" is a theoretically well-tested construct this study will substitute the term "Inclination" for "Motivation."

Demographic Characteristics

The influence of general demographic factors on gift-giving alumni has been widely studied to help determine their predictive characteristics on alumni's capacity or inclination to give. For example a study conducted by Mesch et al, (2006) indicates important differences in philanthropic behaviors by gender, race, marital status, and survey methodology—even when controlling for differences in income, age, and educational attainment. Demographic characteristics have also proven to be equally important for university fund-raisers to consider due to their reliance on precise ways of estimating how much time and money particular groups give, (Steinberg et al., 2002).

This section will explore the literature related to the demographics that have been studied and analyzed to predict alumni giving. Specifically this section will explore studies conducted on age, marital status, gender, race/ethnicity, graduation year.

Age. Age has been identified as a significant predictor of alumni giving. Most studies that use age as a predictor variable have found that older alumni, or alumni of earlier graduation years, are more likely to be donors than younger, or more recent, alumni (Ashcraft, 1995; Willemain et al., 1994). However, as donors reach their prime giving years they have increasing amount of discretionary income and thus a higher capacity to give. Therefore a caution should be exercised in using age as a “stand-alone” predictor because of the interaction that income has with age.

In addition, literature on the benefits of annual giving operations states that when alumni begin patterns of giving at younger ages (i.e. closer to year of graduation) they develop positive patterns of giving which can eventually lead to larger gifts later in the philanthropic giving cycle (Tromble, 1998; Wort, 2002). Bruggink and Siddiqui (1995) also found support for the life cycle hypothesis when examining another research question. In their economic model of giving, Bruggink and Siddiqui (1995) included alumni age as a variable when modeling alumni giving. They found a 5% increase in giving for every one-year increase in age, even after controlling for a donor’s income. Bruggink and Siddiqui (1995) conclude that as donors get older they become more generous, adding to the evidence that donor capacity should be included in integrated models for alumni giving.

Since the profile of students who attended the university analyzed for this study were highly traditional, it was decided that for the purposes of this study, *age* was measured by using a respondent’s year of graduation.

Marital Status. Several studies have used marital status as a determinant of alumni giving. There is a narrow consensus that marital status lacks the power to discriminate donors from non-donors (Beeler, 1982; Keller, 1982; and Korvas, 1984). However, this may be predicated upon the alumna/us' spouse also being an alumna/us of the institution. Ikenberry (2000) found that socio-demographic factors of 'married to an alumnus' and 'time since degree was earned' to be significant correlates of annual giving. Alumni who were married to another graduate of the institution were more likely to donate.

Because of the consistency in identifying *marital status* as a significant predictor of alumni giving, for the purposes of this research, *marital status* was used as a predictive variable.

Gender. A majority of the studies examined for this literature review included sex/gender as a variable when measuring alumni giving; however most of these studies did not find sex/gender to be a significant predictor (Clofelter, 2003; Dugan, Mullin and Siegried, 2000; Eldridge-Karr, 1991; Korvas, 1984; Martin, 1993; McKee, 1977; Okunade and Berl, 1997). The studies that attempted to distinguish the gift-giving behaviors between male and female donors revealed mixed findings.

Most of the studies revealed that men were more likely to give than women (Ashcraft, 1995; Dietz, 1985; Haddad, 1986; House, 1987; Odom, 1995; Oglesby, 1991). While Oglesby (1991) found that male alumni tended to give higher amounts than female, he did caution against the findings, indicating that historically, if a married couple made a gift that the donation would have been recorded under the man's name. Therefore it is the admonition raised by Oglesby (1991) that points to the many of the challenges in attempting to distinguish between male and female donors. Historically, higher education enrollments were overwhelmingly male-dominated resulting in a workforce with greater earning power and likelihood of maintaining continuous

employment throughout their lives. Subsequently, it is because of these factors that assessing between male and female donors is challenging because of the joint gifts made to a university by married spouses.

Race/Ethnicity. A review of the literature reveals a limited number of studies devoted to exploring the gift-giving characteristics of the alumni minority population. Ashcraft (1995) and Okunade and Berl (1997) found that race was not a significant predictor of giving. Odom (1995) found that white alumni were more likely to be donors than alumni of other races or ethnicities, but the study did not control for income.

Studies that have focused on the alumni giving characteristics of minority populations have primarily focused on the African American alumni populations at Historically Black Colleges and Universities (HBCUs) (Drezner, 2009; Gasman, 2001; Freeman & Cohen, 2001; Roy-Rasheed, 2012). The findings from these studies revealed that the Black alumni population does not give back to their alma mater simply because they are not asked to give (Drezner, 2011; Gasman, 2002). Additionally, studies found that African Americans give more of their disposable income to non-profit organizations than any other racial and ethnic community; conversely, they give the least to higher education as opposed to their peers (Drezner, 2009, 2011; Gasman, 2002, 2010).

While the use of *race* as a predictive variable has produced mixed results in previous studies, based upon more recent findings in the past decade on alumni giving of African American undergraduates it was decided that data on an alumna/us *race* would be collected and analyzed for the purposes of this study.

Year of Graduation. This variable has been tested as a predictor of alumni giving in a couple of ways. First it has been employed to determine the average number of years to the first

financial gift by an alumnus/a. For example, Korvas' (1984) study on 529 Rockhurst College graduates found that year since graduation was statistically significant at the .05 level in discriminating between alumni donors and non-donors.

Secondly, Bristol (1990) demonstrates that increases in giving levels occur at regular intervals following the graduation year of a cohort of students. Bristol's concludes that these increases in collective giving correspond with campus events put on by the development or alumni affairs office of an institution i.e. increases in alumni giving correspond with the 25th or 50th class reunions of the graduating class, with higher donations for higher-numbered reunions. Ultimately, Bristol found that the class year predicted increased giving: the longer the student was out of school, the higher the giving. Conversely, it's important to note that Oglesby (1991) explains that the significance of this variable is called into question as a strong negative correlation was found between it and alumni age.

Thomas and Smart (2005) also posited a contrary explanation for the relationship between graduation year and alumni giving. They state that alumni who have been away from the institution longer have received more materials from their university's development and alumni offices and therefore have had more opportunities to be solicited to make financial contributions. Other studies that have found 'graduation year' to be significant are: (Beeler, 1982; Bragg 1971; Burgess-Getts, 1992; Deel, 1971; Grill, 1988; Keller, 1982; Koole, 1981; Mehl, 1995; Oglesby, 1991).

Even though this study viewed *age* and *graduation year* as somewhat synonymous variables, it was important for the purposes of this study to provide an overview of the studies that have found both variables to be predictors of alumni gift-giving behavior. A thorough list of the variables used for this study will be listed in Chapter 3.

College Experiences & Outcomes

Following the theoretical model on alumni gift-giving behavior, this next section will review the experience variables that have been measured in previous studies as determinants of alumni giving. Several of these variables have been measured through the theoretical lens student attrition theory, which explores the academic and social integration of undergraduate students (Tinto, 1975), and student involvement theory (Astin, 1984). The variables explored in this section are: GPA, major, and undergraduate involvement.

GPA. Dugan, Mullin, and Siegfried (2000) examined characteristics of alumni who were full-time students at Vanderbilt University who finished their bachelor's degree in four years. One of the many findings produced from their study was that students with higher grade point averages were more likely to give; more specifically, those who had a higher grade point average in college as compared to high school had a higher average gift size.

For the purposes of this research *GPA* was not included as a variable to be measured in the study's analyses. Because of the vast age range of respondents, there was concern that older alumni would have a challenge in recalling their overall undergraduate GPA. There was also a concern that the phenomenon known as "grade inflation" would present a challenge when comparing the participants' GPA over a 50 year time frame (Eiszler, 2002).

Major. Several studies have examined whether one's major or area of study or undergraduate professional school could determine donors' status, or their level or frequency of giving. Similar to other characteristics referenced in this review, this characteristic also produced mixed results or findings by the various studies; primarily because one's area of study can be translated to one's occupation and future earnings. Income and occupational variables are discussed later in this chapter.

Okunade and Berl's (1997) study of business school alumni found that majoring in finance, real estate or insurance increased alumni's willingness to give when compared to other majors in business and economics. Ashcraft (1995) found that alumni of the Colleges of Business, Education and Engineering were more likely to be donors than alumni of the Colleges of Liberal Arts and Human Service. Both studies discussed the fact that these differences were income-related rather than college- or major-related.

Beeler (1982), on the other hand, found that more graduates of the School of the Arts and Sciences were donors than graduates of the School of Management. Dugan et al. (2000), using humanities alumni as the benchmark, found that majoring in education, human/organizational development, performing arts or sciences lowered the probability that alumni would make a gift, while majoring in economics, math/engineering, psychology and social science raised the probability of giving.

Conversely, similar to other demographic characteristics referenced in this review, (Korvas, 1984; McNally, 1985; Oglesby, 1991; Martin, 1993; Odom, 1995; and Young & Fischer, 1996) all found these types of variables not to be significant predictors. Because of the mixed findings on the variable for *major*, for the purposes of this study it was decided that this variable would not be analyzed.

Undergraduate Involvement. Student involvement in extra/co-curricular activities during college is seen by many as an integral part of a college education, associated with degree completion and increased student learning (Astin, 1985, Pascarella and Terrenzini, 1991). Numerous studies have found a positive relationship between alumni who engage in various extra-curricular activities as undergraduates and their likelihood to make a gift.

Miracle (1977) found involvement in extra-curricular club activity to be a discriminant between donors and non-donors. Gardner (1975) also found that donors were more likely to participate in extracurricular activities, which was consistent with the following studies: (Baker, 1998; Burt, 1989; Conner, 2005; Diehl 2007; Haddad, 1986; Lawley, 2008; Lofton, 2005; Martin, 1993; Miracle, 1977; Shadioan, 1989; Thomas & Smart; 2005; Ward, 2004).

Unfortunately, when these studies have measured student involvement as a predictor, rarely has it looked at their level of involvement or engagement in activities specifically related to the curriculum. Most of these studies only utilized extra-curricular and or co-curricular activities as a measurement for student involvement and rarely did these studies incorporate measurements for determining their involvement in academic activities. For example, a dissertation conducted by Steeper (2009) studied alumni giving outcomes by utilizing student involvement as a variable to measure its influence on alumni giving; however ‘student involvement’ was only one variable in that particular multivariate study. Specifically, the survey instrument utilized for the study didn’t ask one question pertaining to specific academic activities. In fact, his study’s definition of ‘student involvement’ was defined as “the quantity and/or quality of participation in extra-curricular and co-curricular experiences as an undergraduate” (pg. 10).

To summarize, factors influencing alumni to financially contribute to their alma mater were: undergraduate experience such as student involvement (Conley, 1999; Gaier, 2004; Gardner, 1975; Haddad, 1986; Miller & Casebeer, 1990); academic success (Beeler, 1982) and an overall satisfaction of the student experiences (Astin, 1993). Mosser (1993) conducted the only study that identified alumni giving as being related to satisfaction with the college experience including academic satisfaction. The closest study that attributed any curricular,

academic based experiences to an alumna/us' gift-giving behavior was conducted on undergraduate GPA (Dugan et al, 2000).

A review of the studies on student involvement and alumni giving reaffirm the need to isolate those undergraduate experiences that exist within the academic and social arenas of the institution. For the purposes of this study, to help distinguish those differences and the influence they may have on alumni gift-giving behavior, the study's participants will be asked to respond to questions that will measure their level of participation in extra-curricular activities as well as educationally purposeful activities.

Capacity and Inclination to Give

Volkwein's model of alumni gift-giving behavior incorporates both 'capacity to give' and 'motivation to give' as separate constructs that influence a donor's gift-giving behavior. Alumna/us' capacity is influenced by the confluence of his or her demographic background and college experiences & outcomes, Volkwein and Parmley (1999) state:

Donor behavior is viewed as a function of motivation and capacity. However the attitudes and values that produce motivation and the economic attainment and achievements that produce capacity are themselves products of the backgrounds and collegiate experiences of alumni (pg.60)

These next two sections will review the studies that have identified the variables that will be used to measure the constructs of capacity to give and motivation/inclination to give.

Capacity to Give

Perhaps the most fundamental category for influencing alumni gift-giving behavior is couched within an alumna/us' financial capacity to make a gift. Giving capacity variables have been well documented in the literature and several scholars have conducted studies to understand

the impact of a donor's wealth on the likelihood of making a donation. Overall, these scholars found that a donor's wealth significantly predicts alumni giving up to retirement age (Belfield & Beney, 2000; Bruggink & Siddiqui, 1995; Clotfelter, 2003; Holmes, 2009; Grimes & Chressanthis, 1994; Okunade, 1996; Okunade, 1993; Weerts & Ronca, 2006; Weerts & Ronca, 2007).

Since alumni giving capacity is identified as the availability of financial resources (Connolly and Blanchette, 1986), based upon its interaction with other variables, this section will look at three main variables identified in the aforementioned gift-giving model, those are: Income, Occupation, and Dependents.

Income. Brittingham & Pezzullo (1990) found that household income was shown as a major factor that influenced alumni giving. Taylor & Martin's (1995) research on alumni giving suggests that family income may be the single most important demographic factor which distinguishes donors from non-donors. Martin (1993) and McNally (1995) also found that household income directly relates to whether an alumnus gives to their alma mater. The following authors have found higher income to be associated with greater likelihood of giving: (Ashcraft, 1995; Bruggink and Siddiqui, 1991; Okunade and Berl, 1997; Rosser, 1997; Selig, 1999; and Taylor & Martin, 1993).

In two studies, Okunade (1996) and Okunade and his colleagues (1994) tested the life cycle hypothesis among other theories. In a study of graduate school alumni donations using generalized least squares regression, Okunade (1996) found that donations of new graduates decrease at first, but increase as the graduates' wealth increases. Income effects from higher-level professional and doctoral degrees also predicted higher levels of giving. In a second study, Okunade and his colleagues (1994) studied the "age-donation" profile of donor alumni at a large

public research university. Using a pooled random sample survey and regression, Okunade and his colleagues (1994) found that growth rates increase throughout a life span but begin to decline at age, which falls short of the typical retirement age. Although these two studies provide evidence supporting the life cycle hypothesis, the findings may not be generalizable to other institutions because they draw data from only one institution.

Income as a predictor of alumni giving can be challenging to identify because of issues pertaining to self-reporting and reluctance of development officers to ask in fear of being too intrusive and invading personal privacy. However since average salaries for most occupations can be identified through the U.S. Bureau of Labor Statistics obtaining an approximate figure for household income is attainable.

For the purposes of this study, *income* was used in the descriptive analyses; however, in the inferential analyses it was one of the many variables used to comprise the composite variable *Capacity to Give*. Also, as mentioned in the previous paragraph, the process for assigning an income level for each participant was performed by asking the respondent to list provide their primary occupation and then using the median income for each occupation as listed by the U.S. Bureau of Labor and Statistics. More detailed information for measuring income levels is provided in chapter 3.

Occupation. Beeler's (1982) study found that occupation was the second most powerful discriminator between donors and non-donors, and also among donor levels/ alumni with jobs requiring greater skill and responsibility were more likely to be donors and at higher levels than alumni whose jobs required less skill and responsibility. Mehl (1995) also found that donors tended to hold upper management or executive positions and that non-donors tended to be in lower management or staff positions. House (1987), Hoyt (2004), Koole (1981) and Oglesby

(1991) also concluded that occupation was related to donor status, although McKee's (1975) study, occupation was not a significant predictor.

For the purposes of this study, *Occupation* was not included in the analyses, as it was used solely as a means for identifying and assigning an income level for each of the study's participants.

Dependents. The rationale for this variable is predicated on the notion that the more children one has the less discretionary income they have to make charitable contributions. Several studies have produced mixed findings on the effect that the number of children or dependents has on an alumnus/na capacity to make a gift. Many of the mixed findings can be attributed to defining 'number of children' versus 'dependents'. For example, alumni who have children who are still considered dependent upon the parent are less likely to support their alma mater than those whose children who are no longer dependents. Okunde and Berl (1997) conducted a study on a university's business school alumni and found that alumni were less likely to give if they had children in the home at least 12 years old. Conversely, neither Beeler (1982) nor Korvas (1984) found a significant relationship between donors and non-donors based upon number and age of children.

Koole (1981) found that alumni with at least two children were more financially supportive of their alma mater than alumni with fewer than two children. Haddad (1986) found that alumni who had two children were more likely to give; however, his research distinguished those alumnus/na whose children were over 18 to be donors and no longer dependents. Dugan et al (2002) found that alumni with children were five percent more likely to donate to their alma mater than alumni who did not have children.

Meh (1995) and Eldridge-Karr (1991) conducted studies from a planned giving perspective and found that alumni with fewer or no children were more likely to document an estate gift. This finding could serve as a latent function of capacity and motivation since some of these alumni who didn't have heirs were more motivated to identify their alma mater as a beneficiary of their estate.

As referenced earlier in this chapter, some the demographic characteristics studied as potential predictors of alumni giving also have implications on alumni's capacity to give. For the purposes of this study, demographic characteristics such as *Dependents* will be analyzed as independent variables for part of the statistical analyses of this study; however, in the statistical regression analyses these characteristics will be measured within the composite variable of *Capacity to Give*.

Inclination to Give

So far this chapter has reviewed literature associated with the three of the four constructs identified by the study's conceptual model of alumni giving: Demographic Characteristics, Alumni Undergraduate Experiences & Outcomes, and Capacity to Give. Perhaps the most integral of these categories, that requires more than a composition of variables to define, is the concept associated with an alumni's inclination to donate to their alma mater. It is not sufficient to have resources. Volkwein & Parmley (1999) theorize that one must also have the motivation or inclination to do so.

This section reviews the variables that have been significant in measuring a donor's inclination to financially support their alma mater. For this study, this section will review the literature on the following variables: Positive Alumni Attitudes, Alumni Involvement, Residency/Distance from Campus, Perceived Need of Support and Multiple Degrees.

Positive Alumni Attitudes. The affinity that alumni have for their alma mater can be the result of positive feelings alumni have developed during their time as an undergraduate or since their time of graduation. These positive attitudes can be synonymous with a donor's development of an emotional attachment to the institution. For example, Beeler (1982) found emotional attachment to be the single strongest predictor of donor status and donor level.

Using logistic regression analysis and data from 1,608 alumni, Gaier (2005) found that alumni satisfaction with their undergraduate academic experiences and their current involvement as alumni significantly increase the probability of making a donation. Mosser (1993) found that past academic and social experiences shape a donor's satisfaction with the university. He concludes that alumni's giving is related to satisfaction with the college experience, including academic satisfaction. Monks (2003) also found that the single biggest determinant of the generosity of alumni donations is satisfaction with one's undergraduate experience.

Additional studies found positive relationships between alumni's satisfaction with the academic experience and their gift-giving behavior. Prince and File (1994) describe the motivations of major donors as "repayers" who give back to institutions out of gratitude for the education they have received and how it has positively affected their life. In his (2000) study, Patouillet found three items to be significant between alumni attitudes and giving. 1) Alumni member donors indicated the quality of their educational experience to be significantly more satisfying than alumni member non-donors. 2) Donors were more likely to have been satisfied with the quality of their education. 3) Alumni member donors were significantly more satisfied with the quality of faculty.

A significant difference between alumni donors and non-donors was found when examining variables of educational outcomes including development of analytical skills,

development of personal attitudes and values and development of job skills. Alumni who indicated that they gained the ability to think analytically and logically and received appropriate training for their work were more likely to be donors. Alumni who developed positive personal attitudes and values were more likely to give. Additionally, alumni who developed positive friendships and peer networks were more likely to be donors (Ashcraft, 1996).

The following studies also found a link between the level of alumni satisfaction with their educational experiences or preparation and giving (Ashcraft, 1995; Beeler, 1982; Clotfelter, 2003; Gallo & Hubschman, 2003; Hoyt, 2004; Koole, 1981; Korvas, 1984; Miller & Casebeer, 1990; Oglesby, 1991; Shadoian, 1989; Van Horn, 2002).

When reviewing the literature for positive alumni attitudes, the core component being attributed to the alumni populations' positive attitudes was the satisfaction they had with their undergraduate educational experiences. For the purposes of this study, several questions were included in the survey instrument to measure the participants' personal undergraduate experiences. Additional questions were also used to measure the participants overall attitude of the university.

It's important to note that there is a significant difference between measuring an alumna/us overall attitude of their academic experiences as an undergraduate and measuring their level of engagement in educationally purposeful activities, which is the central focus of this study. Therefore, this variable was included in the study to help account for the level of influence it has on the participants' alumni gift-giving behavior.

Alumni Involvement. Several studies have identified alumni involvement activities as having an influence on alumni gift-giving behavior. Those activities that have identified a positive relationship with alumni giving are: alumni association membership (Grill, 1988; Keller,

1982; Klosterman, 1995; Korvas, 1984) maintaining contact with faculty/staff/administrators (Shadoian, 1989) reading university publications (Chewing, 1988; Grill, 1988; Martin, 1993; McKee, 1975; McKinney, 1978; Miracle, 1975; Shadoian, 1989).

For the purposes of this study *Alumni Involvement* was measured in a couple of ways. Primarily it was measured by requesting respondents to report their level of reading university publications as well as by requesting the respondents to disclose the number of university sponsored activities the study participants attended as an alumna/us. *Alumni Involvement* as well as *Alumni Attitudes* were also measured as a composite variable – *Inclination to Give*. More details on the how alumni involvement was measured for this study will be discussed in chapter 3.

Residency/Distance from Campus. The results of using *residency/distance from campus* as a predictor of alumni giving are mixed, perhaps because of the many different ways in which it is operationalized. McKee (1975) found that alumni living in the county where his institution of study was located were more likely to be donors than alumni who did not, and Selig (1999) found that alumni who lived in “close proximity” to the institution were six times more likely to be donors than alumni who did not live in close proximity. Dugan (2000) found that alumni donors who resided in Nashville, where her institution of study was located were more likely to be donors than alumni who did not live there.

Conversely, Beeler (1982) and Enyard (1993) found that alumni donors tended to live farther from campus. Pearson (1996) also found current residency status to be an inversely significant predictor of donor level, in that those alumni who reside in the State of Virginia (same state as their alma mater) were less likely to be significant donors than those that lived outside the state. Pearson found no significant difference between in-state and out of state

residents in relation to donor status. Caruthers (1973) found Oklahoma State University graduates who lived 50 to 100 miles or over 500 miles from campus after graduation to be the most reliable donors to the university.

Some of the inconsistency in these findings may be attributed to the types of colleges or universities that were being studied. For example, a difference may exist between alumni who attended a state funded school (flagship or land-grant) and still reside in the same state versus those alumni who attended a small private arts university within the state. These contradictory findings call into question the need to have findings grouped according to institutional type.

This variable was not included in the data collection process of this study because of the inconsistent findings it produce when being measured as a predictor of alumni giving and because it was not central to the purpose of this study.

Perceived Need for Support. Development professionals are cautious in overstating a financial need of an organization knowing that reservations may exist if donors perceived they are giving. However several studies conducted on this factor have identified it as a significant and positive predictor of alumni giving. Studies conducted by House (1987) Martin (1993) McKee (1975) and Miracle (1977) all determined that alumni donors were more likely to perceive their respective institutions as needing financial support than that expressed by non-donors. Leslie et al (1983) found that even in difficult economic times that alumni are motivated to give if they perceive an institutional need.

Therefore, because of the consistency in previous studies that have identified this variable as a significant predictor, it was decided that this variable would be included in the analyses portion of this study. For the purposes of this study, participants were asked to rate how they perceive their alma mater needs support from its alumni populations.

Multiple Degrees. Findings reviewed from various studies for this variable were mixed. Mehl (1995) and Dugan (2002) both found that donors who had received graduate degrees from a different university remained loyal to their undergraduate institution. However, Taylor and Martin (1992; 1995) found that the majority of donors who gave in lower amounts had attended another institution for their graduate work. Because of the inconsistent findings with this variable holding *multiple degrees* was not included in the analyses portion of this study.

On balance, a review of the literature on overall alumni involvement reveals that select variables have been consistent in influencing an alumna/us' gift-giving behavior. The variables listed above that were inconsistent in producing a significant relationship with alumni giving were not used for this study. Once again, while it is not the purpose study to test all predictors of alumni giving, it is important that this study identify and take into account the amount of variance that other predictors may have on determining whether or not student academic engagement significantly influences alumni gift-giving behavior.

Summary of the Literature Review

This review of the literature on alumni giving has been viewed through a variety of contexts: historical, theoretical, as well as empirical. Historically, this chapter reviewed literature on the history of alumni gift-giving. It also looked at the historical implications of U.S. tax policy's influence on charitable giving in the U.S. Theoretically, this chapter reviewed several theoretical models, developed from a variety of disciplines, on altruistic behavior. Finally, this chapter reviewed empirical studies that have explored a numerous variables and the predictive qualities that may or may not have on influencing alumni gift-giving behavior.

The purpose of this review was to lay a foundation for the study by summarizing and synthesizing existing literature on alumni-gift giving behavior. Through this process, a

theoretical and contextual foundation has been established to support the addition of new information needed in the body of literature on alumni giving. This chapter also established a conceptual framework to guide the study as it accounts and controls for a number of variables that are very specific to the goals of this study; which is to explore the relationship between undergraduate student engagement and alumni gift-giving behavior.

The next chapter will briefly review the selected variables that were employed to help answer the research questions guiding the study. In light of those selected variables and research questions, this will also provide the methodological approach for collecting and analyzing the data used to answer the proposed research questions.

CHAPTER 3: METHODOLOGY

The purpose of this study is to examine the relationships among alumni's level of academic engagement as undergraduate students at a Research I university and the influence engagement has on whether and how much they donate. To further advance the existing literature on alumni giving, this study employed a survey research design to measure and analyze the relationship between academic engagement and alumni gift-giving behavior. The study used both university data on alumni giving and data collected from surveying a sample of donors to gain a better understanding of the relationships that may exist between student engagement and alumni giving.

In order to determine these relationships, two research questions were asked:

1. Is there a relationship between the selected academic engagement variables that alumni experienced while undergraduates and the donor status (donor vs. non-donor) of the University's alumni population?
2. Is there a relationship between the selected academic engagement variables that alumni experienced while undergraduate students and the level of financial contributions provided by alumni donors to the university?

This chapter contains the following sections: research design, population and study population, data collection process, study variables.

Research Design

To answer the research questions set forth by this study, a quantitative research methodology was employed to answer the research questions. A quantitative survey design was then selected as the best method for acquiring most of the data needed for each variable selected

to inform this study. Specifically, the survey design was used to describe the gift-giving behaviors and characteristics of the selected university's alumni population.

Survey Instrument Design and Implementation

A 33-item survey was developed by the researcher to answer the stated research questions. Of the 33 questions in the survey, 13 were adapted from the five benchmark categories determined by the National Survey of Student Engagement's survey instrument to address the issues pertaining to an alumna/us' student engagement while enrolled as an undergraduate student. The remaining 20 questions of the survey were generated based upon a comprehensive review of the alumni gift-giving behavior literature including questions pertaining to student involvement in extra-curricular activities, alumni involvement, alumni attitudes and demographic information.

The survey is divided into five sections (see Appendix): the *Introduction*, which provides the respondent with a statement of what is requested, and why it is worth the time of the interviewee to respond. The second section is titled, *Alumni Attitudes & Involvement* and is comprised of six questions that provided measurable data for the "Inclination to Give" construct. The third section is titled, *Student Involvement* and is comprised of 6 questions to capture and primarily control for the level of involvement that alumni had in extra-curricular activities. The fourth section is titled, *Student Engagement* and is comprised of 13 questions and will provide measurable data for the "Academic Experience" construct. The final section is titled *Demographic Information*, which is comprised of four questions and provides measurable data for variables within the constructs of "Demographic" and "Capacity to Give". (Data merged from the Endowment database provided additional demographic information for each respondent that wasn't captured by the survey.) The survey can be found in the Appendix.

Current higher educational faculty members/advisers were asked to review the survey instrument to help determine that the data collected from the survey would be able to adequately inform and answer the research questions stated for this study, specifically, faculty members of provided critical feedback during the design and implementation of the survey.

The survey was designed as an online survey, however, based upon concerns that an online survey may not generate a high enough response rate, it was determined that a telephone survey could be used to ensure that a sample size of 395 respondents was attained. Therefore a preliminary testing of the survey took place for the telephone survey instrument.

The primary concern with adapting the online survey to the telephone survey was the amount of time it took to read the statement of informed consent, the introduction to the survey, each question and the subsequent answer choices. An additional concern was that the selected participants would choose not to participate in study if the informed consent and/or the introductory statements that were used between each new set of questions took too long read over the phone. Therefore, one alumnus, who qualified as a potential participant, and who also has professional experience with telephone surveys working as a jury selection consultant, was asked to participate in the preliminary test of the telephone survey.

The online survey instrument was transposed into a scripted telephone survey and was timed during the preliminary test. The primary criticism of the original survey instrument was that the survey took too long and that the introduction took too long to read, resulting in a low survey completion rate. Therefore the telephone survey script was pared down to maintain the integrity of the content yet short enough to limit the length of the survey. For example, the first pilot test lasted over 15 minutes. By the end of the testing process the researcher was able to reach a range closer to 9-12 minutes.

An additional step was also taken to limit the amount of time it took to conduct the telephone survey. An introductory letter informing the sample population of the study along with an informed consent statement was mailed out to all of the randomly selected participants. Once the selected participants were called, they were asked if they had received the letter regarding the survey as well as the informed statement. If they received the letter, read and understood issues pertaining to the informed consent, then that limited the amount of time on the telephone that it took to read the informed consent message.

Finally, prior to the survey being distributed to the sample population, the survey was submitted to the University's Institutional Review Board (IRB) for approval. The survey was also reviewed and approved by the administration of the University's endowment association for a couple of reasons. 1) The selected University's endowment association administration is interested in the findings of this study as well and therefore has willingly offered to help with direct and indirect costs of administering the survey. 2) Since data from the survey responses is being paired with individual donor information from potentially key donors to the University it is important that any correspondence being addressed to the alumni population regarding their donor status is appropriately worded so that it may not negatively affect any ongoing relationship that may exist between the donating alumni and the Endowment Association.

Implementation of the survey instrument

Initially the researcher partnered with the university's endowment student call center to help administer the telephone survey. The annual giving department within the selected institution's endowment association contracts with a private company who provides phonation software designed to support a fundraising organization's telephone fundraising program. This software has the capabilities to establish the parameters for loading the sample population to

contact through the automated telephone system. The endowment IT administrator randomly generated the requested number to be sampled from the study population based upon the criteria referenced later in this chapter. The software provided the interviewers with the ability to read from a script and code responses as they are received. Completed surveys could then be exported using Microsoft Excel.

Once the survey questionnaire was generated, two pre-notification letters were mailed to the home addresses of the sample population informing them of the purpose and nature of the study. One letter was drafted by the Senior VP of Development of the selected institution's endowment association and the second pre-notification letter was drafted by the researcher. Both letters encouraged and thanked the potential respondent for their participation in the study. Several days after the pre-notification letters were mailed out, an invitation email including an URL and access code will be sent to all participants. The survey instrument as well as the introductory and follow up letters are included in the appendix section of this study.

Four experienced callers were selected and trained on the content of the survey, as well as the best practices for conducting a telephone survey. The callers also received a human subjects tutorial training through the university's office of institutional research. Once the orientation stage was complete with the interviewers, calls were made to those who had been randomly selected. The process for calling prospective respondents took place in late July and many of the student assistants employed to help conduct the telephone interviews were going back to their respective homes during the break between summer and fall semesters.

After significant time and resources were devoted to contacting respondents through telephone interviews, it became apparent that the process for collecting telephone surveys was taking too long. Therefore, an additional mode for requesting survey participation was needed.

The mode selected was an online survey. Since the survey instrument was originally designed to be delivered as an online survey, the software platform known as Qualtrics was selected to build and administer the survey instruments. Prior to the online survey being administered the necessary changes to the study's methods data collection were resubmitted for approval from the University's Institutional Review Board (IRB). Also, the same process for notifying and encouraging the responses for potential participants in the telephone survey was implemented for the online survey.

All completed online survey and telephone survey responses were sent to the database's programmer/network administrator and paired, or merged, data housed in the joint alumni/endowment database. The paired data were then exported using Microsoft Excel so that the researcher could import the data into the Statistical Package for Social Science (SPSS), v. 21.0 for the data analysis portion of this study.

Study Population

Population under study. The population for the study included all living alumni of a state who graduated with a baccalaureate degree between 1952 and 2002 from a state flagship, Research I university in the Midwest region of the U.S.

As some evidence suggests, alumni must have time to re-pay student loans and establish their careers before they are likely to have the financial means to make charitable contributions (Nichols, 1990) which is why the study limited the population to students who graduated 10 years ago. (This research project originated in 2012, making 2002 ten years prior.) Based upon the Consumer Financial Protection Bureau (CFPB, 2012) the standard repayment schedule for a student loan is 10 years (120 months); therefore it was decided to use a minimum of 10 years since graduation would be used for qualifying alumni to be used in the sample population. This

would ensure that even the youngest graduates would have plenty of time to repay their student loans. Since the oldest alumni selected for this study were graduates of 1952, for the ease of rounding to the next decade, graduates of 2002 were selected as the cutoff point for the youngest graduates to qualify as potential participants. This fifty year range provides the study with a total of 131,138 eligible participants.

To further delineate this population, only those alumni who appear in the University’s alumni/endowment database with active records (e.g. current addresses, phone numbers, emails, etc.) and who could be contacted by telephone were included in the final population; bringing the total of eligible participants to 82,578. It’s also important to note that donors who had only made donations to the athletic department were excluded from this population. Donors who had only documented bequests were also excluded from this study population.

Of the 82,578 eligible participants, 43,023 (52%) were donors and 39,555 (48%) were non-donors. Of the donor population, 21,346 were male (49%) and 21,734 were female (51%). Of the non-donor population 19,931 (50.3%) were male and 19703 (49.7%) were female.

Table 4.1 shows how the population of 82,578 alumni breaks down by gender and donor status. Defining the population by these two characteristics helps the process for finding a sample that is reflective of the demographic profile for the larger target population.

Table 3.1 Population of Alumni by Donor Status and Gender (N = 82,578)

GENDER		Count	Percent	Total
Donor	Female	21,734	50.5%	43023
	Male	21,288	49.5%	(52.1%)
Non-Donor	Female	19,603	49.5%	39555
	Male	19,953	50.5%	(47.9%)

There was concern that if the study population was randomly sampled without considering the profile of donor status and gender that a significantly high number of males and donors would be overrepresented. Even though the alumni population was relatively equal by gender and donor status, a skewed response from these two alumni characteristics was still a concern; therefore, to ensure the sample population was adequately represented in the sampling process, it was decided that women and donors would be purposefully oversampled. To do this, the IT administrator was asked to provide a potential sample that was 50% women and 50% men and a sample that was 52.1% donors and 47.9% non-donors. The following paragraphs will provide a rationale as to why the study population was oversampled by gender and donor status.

Since one of the dependent variables being analyzed in this study is donor status (donor vs non-donor) the oversampling procedure was first used to segment the population by donors and non-donors. Not only is donor status a central variable to this study, there was also concern that non-donors would be less likely to participate in the survey, resulting in a significantly higher number of donor respondents. Therefore, oversampling by donor status was important for controlling the distribution of donors to non-donors.

These subgroups were then oversampled according to gender. Historically, if a household had spouses who were both alumni of the same institution, and a contribution was made on behalf of that household, the male would be the only one receiving credit for making the contribution. Oglesby (1991) cautioned using gender as a predictor of alumni giving for this reason. Since this study is capturing the views of an alumni population whose generation may have been subject to the bygone practice of only crediting the male donor of the household, then accurately sampling the views of the overall female population is important.

Another reason for oversampling the population based upon gender was the fact there was a significant gender gap in male to female enrollment in the 1950s and 1960s (Goldin, et al, 2006). To help control against older female alumni not being accurately sampled in this study, this segment of the population was oversampled as well.

After oversampling the population, a random sample population was then calculated by using the following formula provided by Dillman (2000)

$$N_s = (N_p)(p)(1-p)/(N_p-1)(B/C)^2+(p)(1-p)$$

N_s = completed sample size needed for desired level of precision

N_p = size of population

p = proportion of population expected to choose one of the two response categories

B = acceptable amount of sampling error; .03 = +/- 3% of the true population value

C = Z statistic associated with the confidence level; 1.96 corresponds to the 95% level

Applying Dillman's most conservative value for $p = (.05)$, along with an acceptable sampling error of $.03 = +/- 3%$, a minimum sample size of **395** respondents were needed for the study.

Sample population and survey respondents

Initially, the primary mode for conducting the survey was through telephone interviews. Four undergraduate student callers were employed to conduct the telephone survey interviews. The selected student callers had extensive experience calling for the university's endowment call center, conducting annual giving solicitations on behalf of the university.

The 1,316 sample population were randomly called and asked to participate in the survey. The telephone surveying process collected a total of 227 completed survey responses. Unfortunately, this survey mode proved to be too time intensive and students were drawn away

to call to raise money. Therefore, in an effort to complete the survey and reach the desired sample population, the online survey described earlier was used to gather the remaining responses.

Once again, with the desired response rate set at 30%, the 227 respondents along with the 519 non-respondents (those who were unwilling to participate in the survey) were removed from the 1,316 sampled population; leaving a total of 570 who had not yet been called and asked to participate in the survey. Therefore online surveys were sent out to the remaining 570 prospective participants in an effort to capture the 168 survey responses needed to reach the minimum sample size of 395. Unfortunately the online surveys did not generate a high enough response rate. Therefore subsequent online surveys were emailed to additional sample populations until the established response rate was attained. Essentially, an additional 1,430 alumni were added to the remaining 570 random sample population. Similar to the procedure above, this group was oversample according to donor status and gender using the same percentages (50% female and 52.7% donors). Ultimately, adding the 1,430 increased the final sample population to approximately 2000, resulting in a total 603 usable responses with a final response rate of 30.2%. Table 3.2 provides a breakdown of the respondent population by gender and donor status.

When comparing the study population to the respondent population by donor status, there was a slight disparity between the percentages of donors to non-donors. For example, Table 3.1 reveals that 52.1% of the study population was donors while Table 3.2 reveals that 67.7% of the respondent samples were donors. Correspondingly, 47.9% of those sampled were non-donors while 32.3% in the respondent sample were non-donors.

When comparing the overall population to the respondent population by gender and donor status, the percentages were much more comparable. For example, Table 3.1 reveals that 50.5% of the overall population was female donors, while Table 3.2 reveals that 51.5% of the respondent population was female donors. As it relates to a comparison between the overall population and respondent population by male donors, Table 3.1 shows that 49.5% were donors, while Table 3.2 shows the 48.5% were non-donors.

Table 3.2 – Respondent Population of Alumni by Donor Status and Gender (N = 603)

GENDER		Count	Percent	Surveys Delivered	Total
Donor	Female	210	51.5%	505	408
	Male	198	48.5%	495	(67.7%)
Non-Donor	Female	99	50.8%	505	195
	Male	96	49.2%	495	(32.3%)

Survey Data

The survey data collected for the study were merged with the data collected from the survey instrument and the University’s joint database between the Alumni Association and the Endowment Association. The data warehouse known as “Advance” is the joint database used by the University’s Alumni Association and the Endowment Association. Advance contains data on all alumni of the university (regardless of membership with the alumni association). The demographic information maintained within the database includes: names of graduates, addresses, phone numbers (home, office, cell and fax), degrees earned, graduation year(s), student activities/affiliations, career/professional titles, awards/accomplishments, family history (children), as well as marital status (maiden name for females). Central to this study is the ability to merge participants’ survey responses with their charitable giving history.

The merged data were then exported using Microsoft Excel so that the researcher could import the data into the Statistical Package for Social Science (SPSS), v. 21.0 for the data analysis portion of this study. By combining the data, the necessary statistical analyses could be performed that would help the researcher more easily answer the research questions set forth for this study.

Independent Variables

Based upon the conceptual model used for this study, there are four main categories of independent variables. As referenced in Chapter 2, those four categories are: Demographic Characteristics, College Experiences (Academic Engagement & Extra & Co-Curricular Involvement), Inclination to Give, and Capacity to Give. These four categories help capture all the independent variables used in this study.

This section will next review all the variables used for this study, both independent and dependent, followed by a table (Table 3.3) that will help summarize all the variables used in the statistical analyses. The table also reveals how each variable was defined, coded and measured in the survey instrument.

Demographic Characteristics

As one of the four categories of the conceptual model, alumni demographic variables included: gender, marital status, graduation year, race, income, level of education, level of spouse's education, number of children/dependents. It is important to note that the study identified the potential for multi-collinearity to exist between the 'demographic' and 'capacity to give' variables. This can be attributed to the fact that all of the demographic characteristics identified in this study were used in the development of the composite score for 'capacity to give'. Therefore, immediately following review of each of the demographic characteristics

analyzed for this study, this section will review the process for developing the composite variable for ‘capacity to give’.

Gender. This variable was included to distinguish gift-giving behaviors between men and women. This variable proved to be challenging with older studies because historically many of the donations made on behalf of joint households were attributed to the male of the family (Oglesby, 1991). Understanding if gender differences may exist between levels of student academic engagement and alumni gift-giving behavior will be important to the literature as well as development professionals; especially as female enrollment in higher education has outpaced male enrollment for the past 30 years. The level of measurement used for the variable was dichotomous (0=male, 1=female).

Marital status. Marital status has been proven to have a predictive relationship with alumni gift-giving behavior, specifically as it relates to the overall giving levels (Beeler, 1982; Keller, 1984; Korvas, 1984). Dugan et al (2000) concluded that marital status was not statistically significant but that married alumni were four percent more likely to be donors. However, Bruggink and Siddiqui (1995) also found that single alumni were more likely to be donors than married alumni. Because of these mixed findings, employing marital status as a demographic characteristic may help future research on an alumni population from similar types of institutions. This was measured as a dichotomous variable (0 = not married, 1 = married).

Graduation Year. This variable is important for helping to determine the average timeframe that alumni begin donating back to their alma mater after graduating. The researcher of this study acknowledges that the profile of undergraduate students attending a Research I state flagship university between 1952 and 2002 would be highly traditional, matriculating from a secondary institution and enrolling at the University at approximately 18 years of age; therefore,

there is concern that ‘graduation year’ and ‘age’ can potentially have a high correlation with alumni gift-giving behavior. Knowing of this potential collinearity, ‘graduation year’ was selected because the information could be attained through the university’s database, minimizing the amount of information requested through the survey instrument.

To assist with the interpretation of the findings, in the descriptive data analyses section in Chapter 4; ‘graduation year’ was analyzed as a categorical variable to distinguish differences between donors and non-donors. The categories were broken down into decades (1=1952 to 1961, 2=1962 to 1971, 3=1972 to 1981, 4=1982 to 1991, 5=1992 to 2002).

In the statistical analyses graduation year was also analyzed as a dichotomously, to determine if mean differences exist between average level of total giving and graduation year. Olsen, Smith and Wunnava (1989) as well as Grant and Lindaur (1986) found donations to increase until the traditional retirement age of alumni. Acknowledging traditional retirement age to be 65, and based upon the assumption that the traditional undergraduate student completes his or her baccalaureate degree between the ages of 22-24; ‘graduation year’ was divided by those who graduated in 1972 and earlier. Therefore, those who graduated on or before 1972 were categorized into one group and those who graduated 1973 and beyond were categorized into the other group. (1= 1972 and Below and 2 = 1973 and Above.)

Race/Ethnicity. Considering the historical trends of minority enrollment at predominately white institutions, identifying ‘Race’ as having any significance would be challenging; therefore, acknowledging these challenges, when including ‘Race’ in the statistical analyses portion of this, the variable coded as a dichotomous variable. (0 = whites, 1 = non-whites.)

Income. Because of the inhibitions for respondents to report their income, this study requested the participants’ primary occupation to approximate an alumna/us level of income. To

assign income levels, occupations were divided into the 23 major occupational groups as defined by the U.S. Bureau of Labor Statistics and average salaries were assigned to each group. An additional choice of “other” was added in the case that a respondent didn’t feel their occupation fit within one of the groups listed.

The 23 occupational choices were placed into three categories based upon their average annual income levels according to the 2011 National Industry-Specific Occupational Employment and Wage Estimates produced by the U.S. Bureau of Labor Statistics (2011). In Level 1 occupations were comprised of the highest average salaries, which were ‘\$81,000 and Above’. The following level, Level 2 was comprised of occupations that had the second highest average salaries ‘\$41,000 to \$80,000’. Finally, Level 3 was comprised of occupations that had a range of ‘\$40,000 and below’. (1 = \$40,000 and Below, 2 = \$41,000 to \$80,000, 3 = \$81,000 and Above.)

Number of Children/Dependents. Similar to the other gift-giving behavior characteristics reviewed for this study, findings on dependents, or the number of children an alumnus/a’s has still in the home, have been mixed. However, because negatively significant findings have been found (more children in the home, the less likely they are to donate), especially if the alumna/us still consider the children as dependents or under the age of 12 (Okunade and Berl, 1997), this variable was included in this study and was measured as an ordinal variable with ‘four or more children’ being the highest indicator on the scale (1=no children, 2= 1 child, 3=2 children, 4 = 3 children, 5 = 4 or more children).

Level of Education. The highest degree earned by an alumna/us has been included in several studies, three of the four studies that have included it as a predictor or determinant found that highest degree earned was a significant predictor of donor behavior (Beeler, 1982; Dugan,

2000; Mehl, 1995). Because this study segmented its sample population by those who received a bachelor's degree from their alma mater, this study will ask if the participant received anything more than a bachelor's, e.g. masters, professional or a doctoral degree. The scale of measurement used for this variable was 3-point interval (1 = *Bachelor's*, 2 = *Master's*, and 3 = *Professional/Doctorate*).

Spouse's Level of Education. Using an alumna/us' spouse's level of education as a predictor of alumni giving was identified in the literature review; however, knowing that combined household income has been found to be a predictor, this study will seek to determine if a spouse's level of education is significant in influencing alumni gift-giving behavior. The scale of measurement used for this variable was a 5-point interval. (1=High School, 2=Associates, 3=Bachelors, 4=Masters, 5=Professional/Doctorate.)

The next section will describe how the composite variable 'capacity to give' is measured in the statistical analyses. All of the demographic characteristics used to inform this study, were also used in the development of the 'capacity to give' variable, which is why the demographic variables were not included in the regression analyses used later in the study.

Capacity to Give

Capacity. Multiple variables and proxy variables have been used to measure an alumna/us' capacity to give. Bruggink & Siddiqui (1995) confirmed earlier research findings that identified personal income as a characteristic positively associated with greater giving. Personal income as well as combined household income, occupation, degree, number of children in the residence has also been used as proxy variables to gauge an alumna/us'.

This study employed a composite score that was assigned to each alumna/us by a private consulting firm called DonorScape. The University's Endowment Association contracted the services of DonorScape to perform a wealth screening analysis on its entire alumni database. The methodology used by DonorScape includes predictive variables as: alumni age ranges, estimated household income, home market value, length of residence, marital status, head of household occupation, spouse/second individual occupation, presence of children, second individual's name and gender, mail order buyer, number of vehicles owned, aggregate value of vehicle owned, owner/renter, dwelling size, head of household age ranges, spouse/second individual age ranges, head of household's name and gender, direct mail responses. To collect this information DonorScape partners with at least 13 companies that provide data sources in the areas of hard-asset, demographic, biographic and giving history.

Based upon all the information attained from the various economic data sources, DonorScape developed a gift capacity estimate score for each alumna/us record within the shared alumni/endowment database. The level of measurement for this variable was ordinal with a range of 1 to 8. "1" being the lowest score, with a gift capacity estimate of \$2,500 or below. The highest score of "8" had an assigned gift capacity estimate of \$10,000,000 and above. More detailed review of the assigned values for each score can be found in Table 3.2.

College Experiences: Student Academic Engagement

A handful of studies have identified a number of alumni giving predictors based upon a donor's overall experience as an undergraduate student (Shadioan, 1989; Martin, 1993; Dugan et al, 2000; Thomas & Martin, 2005); however, because the purpose of this study is to measure a donor's level of student academic engagement, this category employed the five NSSE benchmarks to function as sub-categories for measuring the alumni population's level of

academic engagement. To measure the 13 variables identified in this section, participants were asked to agree with a series of statements. The following statements will be listed according to each benchmark, the scale used to measure each statement will also be provided.

Level of Academic Challenge (LAC). Three statements were used to capture the concept of this benchmark. The first asked the participant to recall if they worked harder than they thought they could to meet their instructors' expectations. This item was measured using a 4-point ordinal scale (4=*Agree*, 3=*Somewhat Agree*, 2=*Somewhat Disagree*, 1=*Disagree*). The next statement asked the participant about their level of agreement with the statement 'As an undergraduate I spent a lot of time preparing for class.' This item was measured using a 4-point ordinal scale (4=*Agree*, 3=*Somewhat Agree*, 2=*Somewhat Disagree*, 1=*Disagree*). The final statement for this benchmark asked the participant about their level of agreement with the statement 'When I was an undergraduate the campus environment emphasized spending significant amounts of time studying on academic work.' This item was measured using a 4-point ordinal scale (4=*Agree*, 3=*Somewhat Agree*, 2=*Somewhat Disagree*, 1=*Disagree*).

Active and Collaborative Learning (ACL). Three statements were used to capture the concept of this benchmark. The first statement asked participants to rate their level of agreement with the following statement, 'In class I was asked to think about and apply what I learned in different settings.' This item was measured using a 4-point ordinal scale (4=*Agree*, 3=*Somewhat Agree*, 2=*Somewhat Disagree*, 1=*Disagree*). The second statement asked participants to rate their level of agreement with the following statement, 'I discussed ideas from readings with others outside of class.' This item was measured using a 4-point ordinal scale (4=*Agree*, 3=*Somewhat Agree*, 2=*Somewhat Disagree*, 1=*Disagree*). The final statement for this benchmark asked participants to rate their agreement with the following statement, 'I worked with other

classmates to solve class assigned problems.’ This item was measured using a 4-point ordinal scale (4=*Agree*, 3=*Somewhat Agree*, 2=*Somewhat Disagree*, 1=*Disagree*).

Student-Faculty Interaction (SFI). Three statements were used to capture the concept of this benchmark. The first statement asked participants to rate their level of agreement with the following statement, ‘I was provided with opportunities to interact with faculty members outside of class.’ This item was measured using a 4-point ordinal scale (4=*Agree*, 3=*Somewhat Agree*, 2=*Somewhat Disagree*, 1=*Disagree*). The second statement asked participants to rate their level of agreement with the following statement, ‘I received a lot of feedback from faculty on my academic performance.’ This item was measured using a 4-point ordinal scale (4=*Agree*, 3=*Somewhat Agree*, 2=*Somewhat Disagree*, 1=*Disagree*). The final statement for this benchmark asked participants to rate their agreement with the following statement, ‘I discussed my career plans with a faculty member or advisor.’ This item was measured using a 4-point ordinal scale (4=*Agree*, 3=*Somewhat Agree*, 2=*Somewhat Disagree*, 1=*Disagree*).

Enriching Educational Experiences (EEE). Two statements were used to capture the concept of this benchmark. The first statement asked participants to rate their level of agreement with the following statement, ‘When I was an undergraduate I interacted with students of different religious beliefs, political opinions, or values.’ This item was measured using a 4-point ordinal scale (4=*Agree*, 3=*Somewhat Agree*, 2=*Somewhat Disagree*, 1=*Disagree*). The final statement used to capture the concept of this benchmark was, ‘I was provided opportunities to integrate and apply the knowledge I gained in the classroom to other settings (e.g. internships, field experiences, study abroad, learning community, etc.)’ This item was measured using a 4-point ordinal scale (4=*Agree*, 3=*Somewhat Agree*, 2=*Somewhat Disagree*, 1=*Disagree*).

Supportive Campus Environments (SCE). Two statements were used to capture the concept of this final benchmark. The first statement asked participants to rate their level of agreement with the following statement, ‘The campus environment provided me with the support I needed to help me succeed.’ This item was measured using a 4-point ordinal scale (4=*Agree*, 3=*Somewhat Agree*, 2=*Somewhat Disagree*, 1=*Disagree*). The final statement used to capture the concept of this benchmark was, ‘The campus environment provided opportunities to help me cope with non-academic responsibilities (e.g. work, family, etc.). This item was measured using a 4-point ordinal scale (4=*Agree*, 3=*Somewhat Agree*, 2=*Somewhat Disagree*, 1=*Disagree*).

College Experiences: Extra-Curricular Involvement

Participation in extra-curricular activities has been shown to predict positive alumni gift-giving behavior towards their alma mater (Baker, 1998; Burt, 1989; Conner, 2005; Diehl 2007; Haddad, 1986; Lawley, 2008; Lofton, 2005; Martin, 1993; Miracle, 1977; Shadioan, 1989; Thomas & Smart; 2005; Ward, 2004). For this sub-category, 10 questions were used to measure 8 variables of undergraduate involvement in extra-curricular activities.

Four questions were used to measure the participants’ overall involvement in extra-curricular activities and an additional four questions were used to measure involvement in specific types of activities. For the first four, one question asked them to identify whether or not they participated in any extra-curricular activities. The measurement of scale of this question was dichotomous with “1” = *Yes*, and “2” = *No*. Another question was asked for the participant to identify their level of involvement in extra-curricular activities. The measurement of scale for this question was 3-point ordinal scale. (1 = *Not At All*, 2 = *Somewhat Involved*, and 3 = *Very Involved*). The following question used to measure overall extra-curricular involvement asked the

participants to rate their extra-curricular experiences using a 7-point ordinal scale. (1 = Poor, 7 = Excellent).

Other variables used to measure extra-curricular involvement that had been found in previous studies to be positively significant with alumni gift-giving behavior were: participation in Greek life and (Dugan et al., 2000; Bruggink & Siddiqui, 1995; Harrison, Mitchell, and Peterson (1995) residing on campus as a student (Miracle, 1977; Robinson, 1994; Shim, 2001). The measurement of scale for 'Greek life' was categorical and dichotomous by asking whether or not the alumna/us participated in Greek life, (0 = *No*, 1 = *Yes*). The variable *Years Lived on Campus* was measured using a 5-point ordinal scale. (1 = *did not live on campus*, 2 = *lived for a year*, 3 = *lived on campus for two years*, 4 = *lived on campus for three years*, and 5 = *lived on campus for four or more years*.) An additional question used to measure undergraduate extra-curricular involvement was by asking participants to disclose the frequency they attended athletic events. The scale of measurement used for this question was a 5-point ordinal scale. (1 = *Never*, 2 = *Rarely*, 3 = *Sometimes*, 4 = *Quite Often*, and 5 = *Very Often*.)

Finally, two other variables were measured within this sub-category that were not identified as being measured in previous studies, those variables were: number of hours worked on campus and number of hours worked off-campus. For this study, the measurement of scale for both questions was ordinal with (1 = *zero hours per week*, 2 = *1-10 hours per week*, 3 = *11-20 hours per week*, 4 = *21-30 hours per week*, and 5 = *31-40 hours per week*.)

Inclination to Give

In Volkwein and Parmley's theoretical model (1999) they list several motivating variables or factors that influence an alumna/us gift-giving behavior, factors such as: having multiple degrees from she/he's alma mater, alumni involvement, satisfaction with occupation

and income, perceived need, etc. For this study, only two variables of those factors were selected to be measured for this study. In addition to the two variables, other factors that had been found to be significant in previous studies and identified as being relevant for this category were employed for the goals of this study. Those additional variables were: alumni attitudes, alumni involvement, perceived need and philanthropic priority. A more thorough review of each variable is listed below as well as a definition for how each variable was measured in the survey.

Overall Inclination to Give. As Volkwein and Parmley's (1999) theoretical model denotes, the two constructs that they attribute as having the most influence on alumni gift-giving behavior are "Motivation/Inclination" and "Capacity" to give; therefore, for the analyses portion of this study, both categories were measured as independent composite scores. To assess the degree of internal consistency for all the variables selected within the "Inclination to Give" category, reliability tests were run in SPSS to evaluate how closely related each item is to one another. Using Cronbach's Alpha score for assessing the internal consistency of these variables, the overall alpha score was .691. A threshold of .700 was used as a threshold for determining whether or not these eight "inclination to give" measures would be combined as a single composite score. Even though the .691 score falls below the threshold, it was determined that the alpha score was adequate for the purposes of this study to combine the measure into a single variable. Additionally, a factor analysis was performed to identify the amount of variance that was shared between all eight variables. The results of the analysis can be found within Appendix B.

Table 3.3 Inclination to Give Variables**Cronbach's Alpha = .694**

**How would you rate your educational experience as an undergraduate?
How well did you academic experiences as an undergraduate prepare you for your career?
If I were making a decision today about where to attend college I would still choose my alma mater?**

**How would you evaluate the University's academic reputation on a national scale?
How often do you read publications from the University (hard copy as well as on-line)?
To the best of your recollection, during the last five years, how many University sponsored events have you attended?
To what extent do you perceive the University to need financial support from its alumni?
If you were to consider the philanthropic priorities that are important to you and your family, where would your alma mater fit on the list?**

Because all eight measures used different scales of measurement, in order to create a single composite variable the measured scores needed to be standardized. The process for standardizing the variables was performed using SPSS by loading all eight variables into a factor analysis and extracting the standardized scores into one factor. The following sections reveal how each variable within the category of *Inclination to Give* was defined and measured.

Alumni Attitudes. This variable is included on the assumption that positive alumni attitudes influence alumni's inclination to give back to their alma mater. Specifically, measuring a donor's level of emotional attachment (Beeler, 1982, Shadoian, 1989) as well as their satisfaction with educational experiences is two important indicators of a donor's overall inclination for giving (Beeler, 1982; Gaier, 2006; Oglesby, 1991). To identify a donor's overall attitude towards their alma mater, four questions using various Likert scales (e.g. 4, 5, 7 point scales) were included in the survey instrument. The first question asked the participants to rate their educational experience as an undergraduate and was measured using a 7-point ordinal scale. (1=*Poorly*, and 7 = *Excellent*). The next question asked the participants to rate how well their academic experiences as an undergraduate prepared them for their career. This question was also

measured using a 7-point ordinal scale. (1=*Poorly*, and 7=*Very Well*.) The third question used to capture the *alumni attitudes* construct was to measure if they would still choose their alma mater for their undergraduate education. The scale of measurement for this question was a 4-point ordinal scale. (1=*Agree*, 2=*Somewhat Agree*, 3=*Somewhat Disagree*, 4=*Disagree*.) Finally, the last question used to measure *alumni attitudes* asked for the participants to rate their alma mater's academic reputation on a national scale. The scale of measurement for this question was a 5-point ordinal scale. (1=*Excellent*, 2=*Very Good*, 3=*Good*, 4=*Fair*, 5=*Poor*.) These four questions along with their level of measurement are listed in Table 3.3.

Alumni Involvement. Numerous studies have found that alumni who are more involved with the university are more likely to be donors who give at higher levels. Studies that found alumni involvement to be significant measured this factor in a variety of ways, the four that will be utilized for this study are: attendance at university activities/events, reading university publications and visiting campus, the extent they perceive their alma mater to need financial support from its alumni (Martin, 1993), and where their alma mater ranks as a philanthropic priority for their household. Two questions were used in the survey instrument using 5-point Likert scales to capture the level of alumni involvement.

The first question used to measure alumni involvement asked respondents to report their frequency of reading publications from the University. (1 = *Not at All*, 2 = *Rarely*, 3 = *Occasionally*, 4 = *Often*, and 5 = *Very Often*). The second question used to measure alumni involvement asked participants to indicate the number of KU sponsored events they attended in the last five years (alumni event, athletic event, lecture, theater production, etc.). This measurement of scale for this question was a 5-point ordinal scale. (1 = *Never*, 2 = *1-10*, 3 = *11-*

20, 4 = 21-30, 5 = 31-40.) A detailed listing of the survey questions used to capture the study populations' views as well as the definition for each scale can be found in Table 3.2.

Perceived Need. As referenced earlier in the literature review, several studies conducted by House (1987) Martin (1993) McKee (1975) and Miracle (1977) all determined that alumni donors were more likely to perceive their respective institutions as needing financial support than that expressed by non-donors. Therefore in order to determine whether or not 'perceived need' was a significant factor in influencing the study population's gift-giving behavior, participants were asked to rate how the extent to which they perceived their alma mater to need financial support from its alumni. This variable was measured in the survey instrument by using a three-point ordinal scale: (1 = *To a Large Extent*, 2 = *To Some Extent*, 3 = *To No Extent*).

Philanthropic Priority. It's important to note that a thorough review of the literature did not reveal an alumna/us alma mater being a 'philanthropic priority' for them ever being measured in a research study on alumni gift-giving behavior. Since it has not been explored or tested as a predicted, the logical assumption was made that individuals have multiple organizations vying for their charitable contributions. Therefore, knowing that this influence dynamic influences their gift-giving behavior towards the university, this study included a three-point ordinal scale measuring how the alumna/us ranked the priority of donating to the University. (1 = *Your Top Priority*, 2 = *In Your Top Three Priorities*, 3 = *Below Your Top Three Priorities*.)

Dependent Variables

Two dependent variables were utilized in this study. The first dependent variable was identified as 'donor status' and was measured by whether or not an alumna/us made a financial

donation to their alma mater. Donor status' was analyzed as a dichotomous variable. Non-donors were coded '0' and donors were coded '1'.

The second dependent variable utilized to explore this relationship is 'donor level'.

'Donor level' is defined as the cumulative amount that an alumna/us has financially donated to their alma mater since graduation. This variable was analyzed as a continuous interval variable.

Only the alumni who had made a donation were included into the regression analysis.

Table 3.4 Variable List

Dependent Variables		
Variable Name	Variable Description	Type
DNRSTAT	Alumni donor status (Donor, Non-Donor)	Dichotomous (yes/no)
DNRLVL	Total amount of donor financial contributions	Continuous (\$10 to \$72,493)

Independent Variables		
Variable Category/Name	Variable Description	Type
<i>Demographic Information</i>		
GENDER	Gender of the respondent	Dichotomous (male/female) 0=female, 1=male
MARITAL STATUS	Married/Domestic Partner	Dichotomous (yes/no)
GRAD YEAR	Year that respondent earned baccalaureate degree	Continuous (Year, 1952-2002)
RACE	Race or ethnicity of the respondent	Categorical (0 = White, 1 = Non-White)
INCOME	Median income based upon Respondents occupation per the 23 Standard Classification provided by the US Dept. of Labor	Ordinal (3-point scale) 1=\$40,000 and Below 2=\$41,000 to \$80,000 3=\$81,000 and Above
		Categorical (1=\$80,000 and Below, 2=\$81,000 and Above)
NO. OF DEPENDENTS	Number of dependents in the household	Ordinal (A 5-point ordinal scale from 0=None to 5=4 or more)
LEVEL OF EDUCATION	Highest level of degree earned	Interval 1=Bachelor's, 2=Master's, 3=Professional/Doctoral)

<i>Table 3.4. Cont.</i>		
SPOUSE'S LEVEL OF EDUCATION	Highest level of degree earned	Interval 1=High School, 2=Associates, 3=Bachelors, 4=Masters, 5=Professional/Doctorate
<i>Student Engagement</i>		
Active and Collaborative Learning (ACL)	Asked to think and apply what I learned in different settings.	Ordinal (4-point scale) 4=Agree, 1=Disagree
	Discussed readings w/ others outside of class.	Ordinal (4-point scale) 4=Agree, 1=Disagree
	Worked with other classmates to solve class assigned problems.	Ordinal (4-point scale) 4=Agree, 1=Disagree
Student Faculty Interaction (SFI)	A lot of interaction w/ faculty members outside of class.	Ordinal (4-point scale) 4=Agree, 1=Disagree
	Never received feedback from faculty on academic performance.	Ordinal (4-point scale) 4=Agree, 1=Disagree
	Talked about career plans w/ a faculty member or advisor.	Ordinal (4-point scale) 4=Agree, 1=Disagree
Level of Academic Challenge (LAC)	I worked harder than I thought I could to meet my instructors' expectations.	Ordinal (4-point scale) 4=Agree, 1=Disagree
	I never spent time preparing for class.	Ordinal (4-point scale) 4=Agree, 1=Disagree
	The campus environment emphasized spending significant amounts of time studying on academic work.	Ordinal (4-point scale) 4=Agree, 1=Disagree
Enriching Educational Experiences (EEE)	I was able to talk to students of different religious beliefs, political opinions, or values.	Ordinal (4-point scale) 4=Agree, 1=Disagree
	I was never provided an opportunity to integrate and apply the knowledge I gained in classroom to other outside settings.	Ordinal (4-point scale) 4=Agree, 1=Disagree
Supportive Campus Environments (SCE)	The campus environment provided me with the support I needed to academically succeed.	Ordinal (4-point scale) 4=Agree, 1=Disagree
	The campus environment did not provide opportunities to help me cope with non-academic responsibilities	Ordinal (4-point scale) 4=Agree, 1=Disagree

Table 3.4. Cont.		
Extra-Curricular Involvement		
	Participate in any extra-curricular activities as an undergraduate at your alma mater.	Categorical, dichotomous (yes/no)
	Level of involvement in extra-curricular activities	Ordinal (3-point scale) 1=Not Involved, 3=Very Involved
	Rating of extra-curricular experiences at your alma mater.	Ordinal (7-point scale) 1=Poor, 7=Excellent
	Member of a fraternity or a sorority.	Categorical (yes, no)
	Years lived on campus	Ordinal (5-point scale) 0=None, 5= 4
	Frequency of attending major athletic events as an undergraduate	Ordinal (5-point scale) 1 = Never, 5 = Very Often
	As an undergraduate, did you have an on-campus job	Categorical, dichotomous (yes/no)
	How many hours per week did you work on campus	Ordinal (5-point scale) 0 = None, 5=31-40 hrs/wk
	As an undergraduate, did you have an off-campus job	Categorical, dichotomous (yes/no)
	How many hours per week did you work off campus	Ordinal (5-point scale) 0 = None, 5=31-40 hrs/wk
Inclination to Give		
Alumni attitudes and perceptions of their alma mater	How would you rate your educational experience as an undergraduate at your alma mater?	Ordinal (7-point scale) 1= Poorly, 7 = Excellent
	If I were making a decision about where to attend college, I would still choose at your alma mater.	Ordinal (4-point scale) 1=Agree, 4=Disagree
	How would you evaluate your alma mater's academic reputation on a national scale?	Ordinal (5-point scale) 1 = Excellent, 5 = Poor
Alumni involvement and maintaining a connection w/ their alma mater	How often do you read publications from your alma mater.	Ordinal (5-point scale) 1=Not at all 5=Very Often
	To the best of your recollection, during the last five years, how many university sponsored events have you attended at your alma mater	Ordinal (5-point scale) 1=Never, 5 = 31-40

Table 3.4. Cont.		
Perceived financial need of the University.	Perceived financial need of your alma mater.	Ordinal (3-point scale) 1=To A Large Extent 3=To No Extent
Family Philanthropic Priorities	If you were to consider the philanthropic priorities that are important to you and your family, where would your alma mater fit on the list?	Ordinal (3-point scale) 1=Your Top Priority 3=Below Your Top Three
Capacity To Give		
Alumnus/na financial capacity give (CAPACITY)	Demographic, biographic, and socioeconomic information of each participant was assigned a number based upon their financial capacity to make a charitable contribution.	Ordinal (8-point scale) (8) \$10,000,000 and Above (7) \$1,000,000 - \$9,999,999 (6) \$250,000 - \$999,999 (5) \$100,000 - \$249,999 (4) \$25,000 - \$99,999 (3) \$10,000 - \$24,999 (2) \$2,500 - \$9,999 (1) Less than \$2,500

Statistical Methods

The primary statistical analyses used to answer the two research questions set forth by this study were logistic and linear regression. However, before conducting these analyses, a series of descriptive analyses were conducted to reveal the nature of the relationship between each independent variable and dependent variable. Specifically, a series of chi-square tests were used to examine the relationship between select categorical demographic characteristics and an alumna/us' decision to donate. This was followed by a series of t-tests to measure the mean differences between select categorical independent variables and the continuous dependent variable (i.e. total alumni giving). Upon completing the chi-square tests and t-tests, logistic and multiple linear regression analyses were then used to answer the study's specific research questions.

This study's first research question explored the relationship between the select variables and donor status (donor vs. non-donor) of the University's alumni population. To answer this

question a logistic regression was used to determine the extent to which the select independent variables could explain the variance in donor status (donor vs. non-donor). Logistic regression is used to predict the likelihood of a positive occurrence in the dependent variables relative to the likelihood of a non-occurrence in the dependent variables based on responses to each of the independent variables included in the study (Pampel, 2000).

The basic logistic regression formula that guided these analyses is listed below. A total of 22 variables were entered into the regression equation to determine if any significant predictors of alumni giving status could be identified. A total of 601 cases were used for the logistic regression analysis.

$$\ln = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 \dots + b_nX_n$$

Key

- \ln = the natural log of the dependent variable occurring or not (i.e. a logit variable).
The regression model, therefore, estimates the odds of an event occurring by calculating changes in the log odds of the dependent variables.
- b_0 = the constant
- X = the independent variables
- b = the regression coefficients

The study's second research question explored the relationships that exist between the selected variables and the level of financial contributions provided by alumni to the University. Since dependent variable used to answer this question is a continuous dependent variable (i.e. total alumni giving), a separate multiple regression analysis was used for examining the

combined relationship that multiple independent variables will have on significantly altering the proportion of variance in the level of financial contributions (Cabrera, 1994). A total of 22 independent variables were entered into the multiple regression formula listed below. A total of 408 cases were used for the linear regression analysis

$$y = bX_1 + bX_2 + bX_3 + bX_4 + \dots bX_n + c$$

Key

- y = Dependent variable that is being explained or predicted
- b = *Coefficient*
- X = Value of the independent variable
- c = constant

Study Limitations

A number of limitations are naturally inherent within this type of research design. First, as a survey design study that is collecting data on an alumni population's undergraduate experiences, one limitation is the ability of participants to recall their activities and experiences. Considering the age disparity of the survey respondents, the ability for those to recall their undergraduate experiences may vary significantly depending upon the number of years one is removed from their undergraduate experiences. In this study, the number of years removed from their graduation year can range from 11 to 61 years.

Secondly, while this study may enhance the literature on gift-giving behavior of alumni from a Research I, flagship university in the Midwest region of the U.S., the findings are limited in producing generalizable results for other types of higher education institutions (e.g. private, public, research universities, comprehensive/regional). Specifically, findings that may be conclusive for this population may not be the same for an alumni population of students from a

small liberal arts institution. For example, smaller institutions traditionally have smaller class sizes and lower faculty to student ratios; therefore, opportunities for student-faculty interaction would be higher at these types of institutions.

An additional limitation of this study was the selected demographic characteristics that were employed and analyzed for this study. Retrospectively, one characteristic that may have had a significant relationship with alumni gift-giving behavior was family history of attending the alumna/us' alma mater (e.g. having a parent attend their alma mater may distinguish between donors from non-donors).

Another limitation of the study has to do with the dependent variable. This study looks at an alumna/us decision to give as well as their overall level of contribution; however it does not look at the frequency and average size of the gift. Nor does this study look at how the gift was purposed for the university. Collecting data on these types of variables could reveal greater insight into the alumni gift-giving behavior.

Finally, in order to gain a sufficient sample size to perform the planned analysis, I merged the data from two different survey methods: those who responded to the phone survey and those who replied to an online survey. In hindsight, I should have performed statistical comparisons to determine whether there were any systematic differences among the two groups that would have affected the results. My committee decided that performing this analysis was not necessary but also recommended that the reader be informed that there is a slight possibility that there might be differences between the two groups that affected the results. Additionally, another limitation exists with these two groups because neither sample group reached the minimum sample size needed to achieve the statistical power referenced earlier in the chapter. Even though

the overall number of respondents was 603, which was well over the number of desired participants, neither sampled group produced the minimum sample of 395.

CHAPTER 4: RESULTS

This chapter presents the findings of the analysis on data collected through the study's survey instrument and records obtained by the University's endowment database. The data was analyzed with the purpose to examine the relationship between the selected student academic engagement experiences of undergraduate students and the influence it has on the alumni population's gift-giving behavior. Specifically, this data was collected with the intent to assist in answering the research questions set forth by this study. Those two questions were:

1. Is there a relationship between the selected academic engagement variables that alumni experienced while undergraduates and the donor status (donor vs. non-donor) of the University's alumni population?
2. Is there a relationship between the selected academic engagement variables that alumni experienced while undergraduate students and the level of financial contributions provided by alumni donors to the University?

Donor Status and Alumni Demographic Characteristics

To understand if there are any significant differences in the select demographic characteristics of the alumni population and their decision to donate, chi-square tests of distribution were performed. The tables in this section list the chi-square results for the following demographic variables: gender, marital status, graduation year, income, number of dependents, highest earned degree, and spouse's highest earned degree.

As shown in Table 4.1.1, of the female respondents, 68 % were donors and 32% were non-donors. Similarly, of the males, 67% were donors and approximately 33% were non-donors. Comparatively, a slightly higher percentage of donors are female (51.5%) compared to male donors (48.5%). Of the non-donors, approximately 51% are females and 49% are males. Overall,

there is a very similar pattern of distribution by donor status and gender; however the relationship between donor status and gender was not statistically significant.

Table 4.1.1. Donor Status by Gender (N = 603)

Variable	Non-Donor		Donor		Total	χ^2	p
	N	%	N	%			
Female	99	50.8%	210	51.5%	309	0.26	.872
%	32.0%		68.0%		100%		
Male	96	49.2%	198	48.5%	294		
%	32.7%		67.3%		100%		
Total	195	100.0%	408	100.0%	603		

Of those who are married, 69% are donors and 31% are non-donors. Similarly, the donating patterns by those who are not married reveal that 61% are donors, while 39% are non-donors. From the perspective of donor status, of those who donated, 85% are married while 15% are not married. Comparatively, of the non-donors, 79.5% are married while 20.5% are not-married. These relationship between marital status and gender was not statistically significant.

Table 4.1.2. Donor Status by Marital Status (N = 603)

Variable	Non-Donor		Donor		Total	χ^2	p
	N	%	N	%			
Married	155	79.5%	346	84.8%	501	2.65	.103
%	31.0%		69.0%		100%		
Not Married	40	20.5%	62	15.2%	102		
%	39.2%		60.8%		100%		
Total	195	100%	408	100%	603		

Table 4.1.3 presents the donor status according to the decade in which participants graduated. Of those who graduated within the '52-'61 decade, 61.3% are donors while 38.7% are

non-donors. For the '62-'71 decade, 72.5% are donors while 27.5% are non-donors.

Subsequently, those who graduated between '72 -'81 are identified with the highest percentage of donors (75.5%) and the lowest percentage of non-donors (24.5%). Approximately 72% of those who graduated within '82-'91 are donors, while nearly 28% are non-donors. Finally, for those who graduated within '92-'02, 54% are donors while 46% are non-donors.

The percentage distribution by donor status shows a continual increase in donors for the more recent decades. Of the '52-'61 graduates, 4.6% are donors, and of the '62-'71 graduates, 14.2% are graduates. The percentages continue to increase as 29.5% of donors graduated within '72-'81, and 28.5% graduate within the years '82-'91. Similarly, the distribution of non-donors steadily increases for the more recent decades, 6.4% of the non-donors graduated in '52-'61 while 38.3% graduate in the most recent decade, '92-'02. In sum, as the distribution of participants' increases for the more recent decades, the percentage of donors also increases by graduates from more the more recent decades as well. The relationship between donor status and graduation year was significantly different at the .001 level.

Table 4.1.3. Donor Status by Graduation Decade (N=600)

Graduation Decade	Non-Donor		Donor		Total	χ^2	p
	N	%	N	%			
1952 -1961	12	6.2%	19	4.6%	31	17.58***	.001
%	38.7%		61.3%		100%		
1962-1971	22	11.4%	58	14.2%	80		
%	27.5%		72.5%		100%		
1972-1981	39	20.2%	120	29.5%	159		
%	24.5%		75.5%		100%		
1982-1991	46	23.8%	116	28.5%	162		
%	28.4%		71.6%		100%		
1992-2002	74	38.3%	94	23.1%	168		
%	44.0%		56.0%		100%		
Total	193	100%	407	100%	600		

* = p < .05, ** = p <.01, *** = p < .001

Table 4.1.4 reveals the distribution by income level and donor status. Of those in the *\$80,000 and Below* category, 65.5% are donors while 34.5% are non-donors. Comparatively, of those in the *\$81,000 and Above* category, 34.2% are donors while 65.8% are non-donors. From a donor status perspective, 65.5% of donors are in the *\$80,000 and Below* category while 34.5% of the donors are in the *\$81,000 and Above* category. Overall, the distribution pattern is very similar, however the relationship was not found to be statistically significant.

Table 4.1.4. Donor Status by Income (N = 600)

Variable	Non-Donor		Donor		χ^2	p	
	N	%	N	%			
\$80,000 and Below	129	66.1%	245	60.5%	374	1.79	.275
%	34.5%		65.5%		100%		
\$81,000 and Above	66	33.9%	160	39.5%	226		
%	29.2%		70.8%		100%		
Total	195	100%	405	100%	600		

* = p < .05, ** = p < .01, *** = p < .001

Table 4.1.5 reveals the distribution by the number dependents and their donor status. Of those with *0 Dependents*, 70.7% are donors while 29.3% are non-donors. Those with *1 Dependent* are found to have highest percentage of donors at 74.5%. This was followed by *0 Dependents* (70.7%), *2 Dependents* (66.7%), *3 Dependents* (60.0%), *4 or more Dependents* (58.7%). From the donor status perspective, the distribution of donors to non-donor by number of dependents was relatively similar. Of the donors, the highest percentages have *0 Dependents* (32.8%) while the lowest percentages report *4 or more Dependents* (6.7%). Comparatively, of the non-donors, the highest percentages are also identified with *0 Dependents* (28.2%), while the lowest percentages have *4 or more Dependents* (9.7%). The relationship between donor status and number of dependents was not statistically significant.

4.1.5. Donor Status by Number of Dependents (N = 601)

No. of Dependents	Non-Donor		Donor		Total	χ^2	P
	N	%	N	%			
0 Dependents	55	28.2%	133	32.8%	188	6.98	.137
%	29.3%		70.7%		100%		
1 Dependent	24	12.3%	70	17.2%	94		
%	25.5%		74.5%		100%		
2 Dependents	61	31.3%	122	30.0%	183		
%	33.3%		66.7%		100%		
3 Dependents	36	18.5%	54	13.3%	90		
%	40.0%		60.0%		100%		
4 or more Dependents	19	9.7%	27	6.7%	46		
%	41.3%		58.7%		100%		
Total	195	100%	406	100%			

* = p < .05, ** = p < .01, *** = p < .001

Table 4.1.6 reveals the distribution according to donor status of highest degree attained. Of those who have a bachelor's degree, 67.5% are donors while 32.5% are non-donors. Similarly, of those who have master's degree, about 68% were donors while 32% are non-donors. Of those with a doctoral/professional degree, approximately 64% are donors with 36% being non-donors.

From a donor status perspective, of those with a bachelor's, 51.2% are donors, those with master's are 39.4% donors, and those with doctoral/professional are 9.4% donors. Comparatively, the percentage distribution pattern of non-donors is very similar. Of those with a bachelor's, 51.3% are non-donors, those with a master's degree are 38.0% non-donors, followed

by those a doctoral/professional degree are 10.7% non-donors. Overall, the relationship between donor status and highest earned degree was not found to be statistically significant.

4.1.6. Donor Status by Alumna/Alumnus Highest Earned Degree (N = 601)

Variable	Non-Donor		Donor		Total	χ^2	P
	N	%	N	%			
Bachelor's	100	51.3%	208	51.2%	308	.339	.844
%	32.5%		67.5%		100%		
Master's	74	38.0%	160	39.4%	234		
%	31.6%		68.4%		100%		
Doctoral or Professional	21	10.7%	38	9.4%	59		
%	35.6%		64.4%		100%		
Total	195	100%	406	100%			

* = p < .05, ** = p < .01, *** = p < .001

Table 4.1.7 reveals the distribution according to spouse's highest level of degree attainment by donor status. Alumni spouses with doctoral/professional degrees were identified as being the highest percentage of donors (75%), this was followed by master's (73%), Bachelor's (68%), High School (66.7%) and Associate's (56.8%). Like many of the distributions analyzed by donor status in this section, the comparison between donors and non-donors by level of degree attainment reveals a similar distribution. The relationship between donor status and spouse's highest earned degree was not statistically significant.

4.1.7. Donor Status by Spouse's Highest Earned Degree (N = 490)

Variable	Non-Donor		Donor		Total	χ^2	p
	N	%	N	%			
High School	24	15.8%	48	14.2%	72	4.60	.330
%	33.3%		66.7%		100%		
Associate's	16	10.5%	21	6.2%	37		
%	43.2%		56.8%		100%		
Bachelor's	66	43.4%	141	41.7%	207		
%	31.9%		68.1%		100%		
Master's	34	22.3%	92	27.2%	126		
%	27.0%		73.0%		100%		
Doctoral or Professional	12	8.0%	36	10.7%	48		
%	25.0%		75.0%		100%		
Total	152	100%	338	100%	490		

* = p < .05, ** = p < .01, *** = p < .001

Donor Giving Levels and Alumni Demographic Characteristics

T-tests were used to determine if the mean differences in the total amount of money donated were statistically significant by a series of demographic variables. Prior to conducting the t-tests, the demographic variables that were measured by more than two categories had to be reduced into dichotomous variables. The process for dichotomizing those variables required a review of the frequencies and then identifying a mid-point that would minimize a skewed distribution. Two characteristics were already measured as dichotomous variables; those were *gender* and *marital status*.

The only demographic characteristic that was measured as a continuous variable was *graduation year*. Based upon previous literature, this variable was not dichotomized by identifying a mid-point in the frequency. As referenced in Chapter 3, previous studies have found donor behavior to change after traditional retirement age; therefore based upon the assumption that alumni who graduated in 1972 would now be 65, this study used 1972 as the cutoff year to create to categories for ‘graduation year.’ A cutoff point of 1972 skewed the respondent population towards more recent graduates. Those graduating during or before 1972 totaled 77. Those graduating during or after 1973 totaled 330.

The process of reducing demographic characteristics into dichotomous variables was carried out for the following characteristics: ‘graduation decade’, ‘number of dependents’, ‘income’, ‘highest earned degree’, and spouse’s highest degree earned.

Results of the independent samples t-test were analyzed and are reported in Table 4.2. The table reveals that 2 of the 7 selected demographic characteristics measured in the t-tests were found to have significant differences in total alumni giving levels. The two demographic characteristics that were found to produce statistical differences in total giving average were ‘graduation year’ and ‘highest degree earned.’ Specifically, those alumni donors who graduated during or before 1972 donated greater amount of money ($M = \$2929.16$, $SD = 5786.73$), than those donating alumni who graduated during or after 1973 ($M = 1261.81$, $SD = 3617.30$). This difference was statistically significant at the .01 level, $t(405) = 2.52$. Concurrently, those who reported as having a graduate degree also produced a higher mean in total donations ($M = \$2171.92$, $SD = \$7180.37$) compared to the donating alumni who reported a bachelor’s degree as being their highest degree earned ($M = \$1017.85$, $SD = 2137.50$). On average, individuals who

have a graduate degree donated at greater amounts than those with a bachelor's degree. The mean difference was significant at the .05 level, $t(404) = -2.21$.

The five demographic characteristics that did not produce statistical mean differences in donor giving levels t-tests were: 'gender' $t(406) = -1.64$, $p > .05$, 'marital status' $t(405) = -1.40$, $p > .05$, 'income' $t(406) = -0.57$, $p > .05$, 'number of dependents' $t(404) = 0.27$, $p > .05$, and 'spouse's highest degree earned' $t(336) = -0.94$, $p > .05$.

Table 4.2 Total Average Giving by Demographic Characteristics

Variable (N = 409)	Total Average Giving			<i>t</i>	<i>p</i>
	N	M	SD		
<i>Gender</i>					
Female	210	\$ 1160.25	\$5172.17	-1.64	.102
Male	198	\$ 1355.59	\$5320.38		
<i>Marital Status</i>					
Not-Married	63	\$724.16	\$1,314.40	-1.40	.162
Married	344	\$1733.95	\$5,683.05		
<i>Income</i>					
\$80,000 and Below	245	\$1462.12	\$5786.73	-0.57	.563
\$81,000 and Above	159	\$1773.45	\$4397.16		
<i>Graduation Year</i>					
1972 and Before	77	\$ 2929.16	\$9432.15	2.52**	.012
1973 and After	330	\$ 1261.98	\$3617.30		
<i>No. of Dependents</i>					
No Dependents	133	\$1642.57	\$5322.95	0.27	.786
Dependents	273	\$1492.59	\$5175.81		
<i>Highest Degree Earned</i>					
Bachelor's Degree	208	\$1017.85	\$2137.50	-2.21*	.027
Graduate Degree	198	\$2171.92	\$7180.37		
<i>Spouse's Highest Degree</i>					
Bachelor's Degree	208	\$1520.64	\$3988.87	-.935	.350
Graduate Degree	198	\$2121.87	\$7793.00		

* = $p < .05$, ** = $p < .01$, *** = $p < .001$

Donor Status and Student Academic Engagement

Additionally, a series of t-tests were conducted to examine if the level of academic engagement differed by donor status. The t-tests revealed that 5 of the 13 measures produced mean scores that were statistically different between donors and non-donors at the .05 and .01 levels. (See Table 4.2) Specifically, of the variables that represent the level of academic challenge (*LAC*), two variables present significant differences by donor status, those are: ‘*Worked hard to meet instructor’s expectations*’ and ‘*Campus environment emphasized devoting time to academic work*’. Donors reported a higher mean for the item, ‘*worked hard to meet instructor’s expectations*’, 3.03 (SD = 0.89), whereas the mean score of non-donors was 2.87 (SD = 0.91). This difference was found to be statistically significant at the .05 level, $t(404) = -2.06$. On the measure ‘*campus environment emphasized devoting time to academic work*’ donors reported a significantly higher mean score at 3.16 (SD = 0.85) whereas non-donors recorded a mean score of 2.95 (SD = 0.84). This difference in mean scores was found to be statistically significant at the .01 level, $t(592) = -2.88$.

Of the *Active and Collaborative Learning (ACL)* benchmark, only one measure was found to produce a statistically significant difference in mean scores between donors and non-donors. On the survey measure ‘*In class, I was asked to think about and apply what I learned in different settings*’, donors reported a significantly higher mean score at 3.24 (SD = 0.88) whereas non-donors recorded a mean score of 3.04 (SD = 0.82). This difference in mean scores was found to be significant at the .01 level, $t(595) = 2.63$.

Of the *Student-Faculty Interaction (SFI)* variables, the item ‘*provided with opportunities to interact with faculty members outside of class*’ produced a significantly different mean score by donor status as donors reported a higher mean score at 2.90 (SD = 1.09) than non-donors,

2.62 (SD = 1.12). The difference in means scores was found to be significant at the .01 level, $t(599) = -2.89$.

Finally, of the *Supportive Campus Environment (SCE)* variables, ‘*campus environment provided support to help me succeed academically*’ produced a significantly higher mean score, 3.30 (SD = 0.85) than non-donors, 3.10 (SD = 0.83). The difference in means scores was found to be significant at the .01 level, $t(599) = -2.73$.

Table 4.3 Mean Differences of Select Individual Variables by Donor Status

Variables	Donor			Non-Donor			<i>t</i>
	N	Mean	SD	N	Mean	SD	
<i>College Experiences: Student Engagement</i>							
<i>LAC</i>							
Worked hard to meet instructors expectations	405	3.03	0.89	192	2.87	0.91	-2.06*
Spent a lot of time preparing for class	408	3.33	0.79	194	3.22	0.81	-1.53
Campus environment emphasized devoting time to academic work.	400	3.16	0.85	194	2.95	0.84	-2.88**
<i>ACL</i>							
In class, was asked to think about and apply what I learned in different settings.	403	3.24	0.88	194	3.04	0.82	-2.63**
Discussed ideas from readings with others outside of class.	405	3.02	1.00	191	2.95	0.92	-0.86
Worked with other classmates to solve class assigned problems.	404	3.23	0.94	190	3.08	0.92	-1.73
<i>SFI</i>							
Provided with opportunities to interact with faculty members outside of class.	406	2.90	1.09	195	2.62	1.12	-2.89**
Received feedback from faculty on my academic performance.	405	2.82	1.02	194	2.69	1.01	-1.49
Discussed my career plans with a faculty member or advisor.	406	2.63	1.21	195	2.55	1.07	-0.80
<i>SCE</i>							
Campus environment provided support to help me succeed academically.	405	3.30	0.85	195	3.10	0.83	-2.73**
Campus environment provided opportunities to cope with non-academic responsibilities.	381	2.54	1.03	190	2.43	0.96	-1.18
<i>EEE</i>							
Interacted with students of different religious beliefs, political opinions, or values.	404	3.50	0.82	195	3.49	0.54	-0.07
Provided with opportunities to integrate and apply the knowledge I gained in the classroom to other settings.	402	2.98	1.09	195	2.86	0.76	-1.27

Table 4.3 Continued

<i>Extra-Curricular Involvement</i>							
Level of Extra-Curricular Involvement	408	1.57	1.19	195	1.43	1.13	-1.36
Rate of Extra-Curricular Involvement	408	3.90	2.87	195	3.59	2.71	-1.27
Involvement in Greek Life	408	1.37	0.48	195	1.27	0.44	-2.39*
Years Lived on Campus	407	3.13	1.46	195	3.18	1.40	0.35
Attended Athletic Events	408	3.76	1.23	195	3.55	1.35	-1.90
Hours worked on Campus per Week	408	1.03	1.37	195	0.94	1.38	-0.72
Hours worked off Campus per Week	408	1.53	1.68	195	1.80	1.72	1.88
<i>Inclination</i>							
Inclination to Give	391	0.15	0.96	193	-0.31	1.00	-5.39***
<i>Capacity</i>							
Capacity to Give	407	-0.09	0.83	191	0.20	1.10	3.76***

* = $p < .05$, ** = $p < .01$, *** = $p < .001$

Donor Status and Student Extra-curricular Involvement

Table 4.3 also reveals independent sample t-tests results for mean differences of donors and non-donors by the respondents' reported scores on the survey questions used to measure the study populations level of involvement in extra-curricular activities. Of the seven measures used to capture student extra-curricular involvement, Greek life was the only measure found to produce a statistically significant difference in mean scores. It's important to note that participation in Greek life was measured as a categorical variable (yes or no); therefore since t-test can only be performed on ordinal variables, a separate chi-square test was performed to measure the relationship between participation in Greek life and donor status. The chi-square test found the relationship to be statistically significant.

The only two composite variables analyzed in this study were 'inclination to give' and 'capacity to give'. Independent sample t-tests were conducted on these two measures to determine if significant mean score differences existed between donors and non-donors. For the measure 'inclination to give' the t-test revealed that donors reported a higher mean score of 0.15

(SD = 0.96), whereas the non-donors reported a mean score of -0.31 (SD = 1.00). The difference in mean scores was found to be significant at the .001 level, $t(582) = -5.39$.

Finally, the independent sample t-tests for the measure ‘capacity to give’ revealed that donors reported a higher mean score at -0.09 (SD = 0.83) whereas non-donors reported a mean score of 0.20 (SD = 1.10). The difference in mean scores was significant at the .001 level, $t(596) = 3.76$.

Logistic Regression Analysis: Variables Associated with Donor Status

To answer the first research question, a logistic regression was performed to examine the effects of independent variables, particularly academic engagement on the likelihood that participants would donate to their alma mater. Also included in the model were the selected variables used to capture the respondents’ ‘level of involvement in extra-curricular activities as undergraduates’, their ‘inclination to give’, as well as their ‘capacity to give.’ The logistic regression model was statistically significant, $X^2(22) = 66.22$, $p < .001$, the model explained 16.8% (Nagelkerke R^2) of the variance in the respondents’ decision to donate and correctly classified 70.9% of cases.

A preliminary logistical regression analysis was performed using 22 variables used to measure college experiences (student academic engagement and extracurricular involvement), inclination to give and capacity to give. Of the 22 variables, six were found to be significant. Therefore, Table 4.4 only shows the logits and odds ratio for each of the six statistically significant independent variables. Two of the six variables were found within the student engagement category, those measures were: ‘*When I was an undergraduate the campus environment emphasized spending significant amounts of time studying academic work*’, and ‘*I was provided with opportunities to interact with faculty members outside of class.*’ The odds of

respondents who agree that the '*campus environment emphasized time spent on academic work*' had a 37% greater likelihood of donating than those who to agree with the statement. Alumni who agreed that they were '*provided with opportunities to interact with faculty members outside of class*' had a 32% greater odds of donating than their counterparts who were less likely to agree with the statement. In other words, alumni who are more likely to agree with the statement on that they were provided with opportunities to interact with faculty members outside of class are more likely to be a donor than their counterparts who were less likely to agree with the statement.

The other four significant variables were: Involvement with '*Greek Life*', '*years lived on campus*', '*Inclination to Give*', and '*Capacity to Give*'. The odds ratio for '*Greek Life*' indicates that the odds of alumni who participated in Greek Life being a donor were 74% greater than those of alumni who did not participate in Greek life. The odds ratio for "*years lived on campus*" indicates that with a one point increase on the five-point scale the odds of a member of the alumni population donating decreases by 18%.

Correspondingly, the odds ratio for the composite variable '*Inclination to Give*' indicates that alumni who scored one unit higher on the standardized 5-point scale had 55% greater odds of donating than those with lower *Inclination to Give* scores. Finally, of the '*Capacity to Give*' composite variable, the odds ratio indicates that when holding all other variables constant, individuals with the higher capacity to give score have 57% greater odds of donating than those who have lower capacity to give score.

Table 4.4 - Logistic Regression Results for Donor Status

Variables	B	S.E.	Exp(B)	Tolerance /VIF
<i>College Experiences: Student Engagement</i>				
<i>LAC</i>				
Campus environment emphasized devoting time to academic work.	0.32	0.15	1.37*	1.17
<i>SFI</i>				
Provided with opportunities to interact with faculty members outside of class.	0.28	0.12	1.32*	1.17
<i>College Experiences: Extracurricular Involvement</i>				
Greek Life	0.55	0.26	1.74*	1.05
Years Lived on Campus	-0.20	0.09	0.82*	1.04
<i>Inclination</i>				
Inclination to Give	0.44	0.15	1.55**	1.06
<i>Capacity</i>				
Capacity to Give	0.37	0.12	1.57**	1.13
Constant	-0.72	0.93	0.49	
<hr/>				
Omnibus Tests of Model Coefficients	χ^2	df	P	
Step	66.22	22	.000	
Block	66.22	22	.000	
Model	66.22	22	.000	
Goodness-of-Fit Test				
Hosmer & Lemeshow	2.67	8	.932	

* = p < .05, ** = p < .01, *** = p < .001

Note: Cox & Snell R² = .121, Nagelkerke R² = .168

Linear Regression Analysis: Variables Associated with Amount of Money Donated

In order to answer the second research question, a multiple linear regression model was used to further explore the relationships between the selected student academic engagement variables and the level of financial contributions that donors made to the university. The total amount of money donated since graduating was used as the continuous dependent variable and the select independent variables of alumni gift-giving behavior were used as predictors to determine if student academic engagement could be predicted as a function of total alumni giving levels. Overall, the regression model was found to be statistically significant F (22) =

1.706, $p < .01$, although 'capacity to give' was the only predictor of total alumni giving levels. This multiple regression accounted for 10.6% of the variability, as indexed by the adjusted R^2 statistic.

Of the 26 selected independent variables used in the regression analysis, only one variable, '*capacity to give*', was found to be a significant relationship with donors' total giving levels at the .001 level. None of the 13 variables, when holding the others constant, used to measure student academic engagement emerged as being significant predictors of total donor giving.

Table 4.5 – Linear Regression Results for Total Donor Giving

Variables	B	S.E.	β
Constant	5159.15	2724.56	
<i>College Experiences: Student Engagement</i>			
<i>LAC</i>			
Worked hard to meet instructors expectations	347.3	383.387	0.06
Spent a lot of time preparing for class	-334.10	433.59	-0.05
Campus environment emphasized devoting time to academic work.	-424.26	434.73	-0.07
<i>ACL</i>			
In class, was asked to think about and apply what I learned in different settings.	-350.20	426.84	-0.06
Discussed ideas from readings with others outside of class.	-438.84	380.19	-0.08
Worked with other classmates to solve class assigned problems.	-17.07	379.84	0.00
<i>SFI</i>			
Provided with opportunities to interact with faculty members outside of class.	27.53	331.91	0.01
Received feedback from faculty on my academic performance.	-273.27	388.87	-0.05
Discussed my career plans with a faculty member or advisor.	-56.03	284.99	-0.01
<i>SCE</i>			
Campus environment provided support to help me succeed academically.	21.35	448.46	0.00
Campus environment provided opportunities to cope with non-academic responsibilities.	262.51	345.14	0.05
<i>EEE</i>			
Interacted with students of different religious beliefs, political opinions, or values.	-422.20	404.23	-0.06
Provided with opportunities to integrate and apply the knowledge I gained in the classroom to other settings.	240.43	328.72	0.05
<i>College Experiences: Extracurricular Involvement</i>			
Level of Extra-Curricular Involvement	608.28	575.26	0.13
Rate of Extra-Curricular Involvement	-67.67	246.08	-0.04
Greek Life	636.19	719.89	0.06
Years Lived on Campus	83.38	242.25	0.02
Attended Athletic Events	-321.61	287.47	-0.07
Hours worked on Campus per Week	162.34	227.52	0.04
Hours worked off Campus per Week	258.41	187.95	0.08
<i>Inclination to Give</i>			
Overall Inclination	580.35	341.83	0.11
<i>Capacity to Give</i>			
Overall Capacity	1348.51	369.34	0.21***

$R^2 = .106$, * = $p < .05$, ** = $p < .01$, *** = $p < .001$

Summary of Research Findings

In an effort to answer which variables predict whether alumni donate and the extent of their donation, this chapter reported results of several descriptive and inferential statistical analyses. From the descriptive analyses, chi-square tests of distribution were conducted on the study's demographic variables. Increasing age or year since graduation was the only variable to produce a significant higher percentage of donors than non-donors. T-tests were then performed to measure mean differences of donor giving levels according to the study's demographic variables. The results found that respondents who graduated on or before 1972 were identified as donating at significantly higher levels. Additionally, respondents with graduate degrees were also found to give at significantly higher levels.

Additional t-tests were performed to measure mean differences in measures by the select independent variables by the dependent variable, donor status. Results of the t-tests found a higher level of academic engagement for donors in five of the thirteen variables comprising 'student academic engagement'. Specifically, donors were found to score significantly higher than non-donors on the following statements: 1) *Worked hard to meet instructors expectations.* 2) *Campus environment emphasized devoting time to academic work.* 3) *In class, was asked to think about and apply what I learned in different settings.* 4) *Provided with opportunities to interact with faculty members outside of class.* 5) *Campus environment provided support to help me succeed academically.* Finally, donors were found to score significantly higher measures in their 'inclination to give' and 'capacity to give'. A separate chi-square test between Greek life and donor status also found the relationship to be statistically significant.

Subsequently, results of the logistical regression analysis identified six statistically significant variables of donor status. Of the academic engagement variables, two were found to

be significant and employed the following statements measure the relationship: *campus environment emphasized devoting time to academic work*, and *provided with opportunities to interact with faculty members outside of class*. Two of the student involvement variables, *participated in Greek life* and *years lived on campus* were found to be predictors. Finally, both composite variables used for this study (*Inclination to Give* and *Capacity to Give*) were found to be significant predictors of the respondents' decision to financially donate to their alma mater.

Finally, for the linear regression analysis, results did not identify any significant predictors between the select student academic engagement variables and the respondents' total amount of financial donations. When accounting for the other variables in the analysis the only variables identified as have a significant relationship with donor financial giving levels was the composite variable, *capacity to give*. Correspondingly, while the significant findings of this study were modest, a theme emerged as a result of the findings that were identified. Chapter 5 will further discuss this theme as well as provide recommendations for future research.

CHAPTER 5: CONCLUSION

Introduction

The overarching purpose of this study was to explore additional characteristics of the alumni donor profile by examining the relationships that exist between undergraduate academic engagement and alumni gift-giving behavior. To examine this relationship, two primary research questions were developed using Volkein and Parmely's (1999) theoretical model on alumni gift-giving and Kuh's (2001) theory on study engagement. The results identified several relationships to exist between student academic engagement and an alumna/us' decision to financially donate.

Following the order of the two research questions that were posed, this chapter will first provide an overview of the major findings. Additionally, in an attempt to synthesize the findings, this section will then discuss the broader meaning these findings have within the context alumni giving. Furthermore, while the purpose of this study was to research alumni gift-giving behavior through the lens of student academic engagement, in the attempt to control for other significant factors of alumni giving, additional characteristics of the alumni donor profile were also identified. Therefore, with the intent of advancing the theory on alumni gift-giving behavior, these additional characteristics will be discussed in this chapter as well. Finally, this section will discuss the implications these findings have on the alumni giving literature as well as implications these findings have on higher education professionals.

Overview of Major Findings

Student Academic Engagement and Alumni Gift-Giving Behavior

Descriptive analysis of the 13 variables used to measure student academic engagement identified five variables as being positively associated with an alumna/us' decision to donate back to their alma mater. Specifically, on average, donors recorded significantly higher scores

than non-donors on five of the variables used to measure student academic engagement. To help with the interpretation of this finding, it is important to categorize the significant variables according to their respective NSSE benchmarks.

The first two significant variables fell within the category of *Level of Academic Challenge (LAC)*, and were measured by the following two statements: ‘*Worked hard to meet instructors’ expectations*’ and ‘*Campus environment emphasized devoting time to academic work*’. The next significant variable fell within the *Active and Collaborative Learning (ACL)* benchmark, that variable was measured using the following statement: ‘*In class, was asked to think about and apply what I learned in different settings.*’ Another benchmark that produced a significant variable was found in *Student-Faculty Interaction (SFI)*. That variable was measured using the following statement: ‘*Provided with opportunities to interact with faculty members outside of class.*’ Finally, the fourth benchmark that produced a significant variable was SCE, that variable was measured using the following statement: ‘*Campus environment provided support to help me succeed academically.*’ The only benchmark that did not produce a significant variable for donors was EEE.

To further the analysis of this relationship, a logistic regression model using all 22 independent variables identified in the study’s conceptual model. The analysis identified two variables as being significant predictors of an alumna/us’ decision to donate. As identified in the previous analysis, the first variable, ‘*Campus environment emphasized devoting time to academic work*’ fell within the benchmark *Level of Academic Challenge (LAC)*. Alumni who agreed with the statement were 37% more likely to donate than those who disagree with the statement. The second variable, ‘*Provided with opportunities to interact with faculty members outside of class*’ fell within the *Student-Faculty Interaction (SFI)* benchmark. Alumni who

agreed with this statement were 32% more likely to donate than those who agree less with the statement.

A linear regression model was also conducted using all 39 independent variables identified in the study's conceptual model. The regression analysis did not find any of the 13 student academic engagement variables to have a significant relationship with the donating alumni populations' overall level of financial contributions given to their alma mater.

Additional findings for alumni giving

Of the seven demographic characteristics used for this study, only one was identified as having a significant relationship with an alumna/us' decision to donate. The study identified that *year of graduation* has a positive relationship with the alumni population's decision to donate; specifically, the study found that alumni who graduated between 1972 and 1981 were more likely to give than any other decade.

Surprisingly, one demographic characteristic that was not found to be significant was the relationship between donor status and income. No statistical significance was found between the sampled alumni populations' decision to give based upon their assigned income, whether *\$81,000 and Above* or *\$80,000 and Below*. More on this finding will be discussed later in this section.

As it relates to cumulative giving levels and demographic characteristics, the study found two characteristics producing significantly higher averages in total donations. The study showed that the average giving totals of alumni who graduated on or before 1972 were statistically higher than those who graduated on or after 1973. The second demographic variable found to have a positive relationship with donor giving levels was *highest earned degree*. On average, it

showed that alumni who had a graduate degree donated at higher levels than those whose highest degree was a bachelor's.

Of the seven extra-curricular involvement variables used for this study found, involvement in *Greek Life* was the only variable that identified donors producing higher mean scores of involvement than non-donors. Additional analysis also found that those who were involved or participated in *Greek Life* were 74% more likely to donate than non-participants. This finding was consistent with previous studies that identified involvement in *Greek Life* as a significant predictor (Gaier, 2006; Dugan et al., 2000; Bruggink & Siddiqui, 1995). Interestingly as it is, Gaier's study (2006) found that those who participated in Greek Life had 75% greater likelihood of donating.

The only other student involvement variable found to be a significant predictor was *years lived on campus*. The analysis found that those who lived longer on campus were 18% less likely to donate. This finding is contrary to other studies that have found years residing on campus to positively influence alumni gift-giving behavior (Miracle, 1977; Robinson, 1994, Still, 2001).

Finally, both composite variables used in this study, *Inclination to Give* and *Capacity to Give*, were found predict donor status. *Inclination to Give* was comprised of alumni attitudes and alumni involvement variables, therefore alumna/us' who demonstrated higher scores in these area were more involved and have higher attitudes in these areas were 55% more likely to donate than those who did not participate. Comparatively, based upon the capacity scores assigned to each alumni member's record in the university's endowment database, those who ranked higher on the capacity scale were 57% more likely to donate than those with lower ratings. Furthermore, the only variable found to have a correlational relationship with overall giving totals was, not surprisingly, the *capacity to give* variable. It was found to be significant at the .001 level.

Discussion and Implications

To help synthesize the findings and develop a broader meaning on the relationship that was found between student academic engagement and alumni giving, this study employed the five NSSE benchmarks. As indicated earlier, the results found that alumni donors self-identified as having higher levels of engagement on measures found within four of the five NSSE benchmarks. Those four benchmarks are: *Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction and Supportive Campus Environment*. The only benchmark that was not identified as having a significant impact on donor behavior was *Enriching Educational Experiences*.

Specifically, when reviewing each those significant academic engagement measures used within the NSSE benchmarks, a common theme emerged amongst those identified as having a significant relationship with the alumni population's decision to give. That theme is: Alumni who indicated that they were challenged academically and received the academic support they needed from the university were more likely to donate. To help reinforce this statement, all five significant engagement variables identified in this study will be listed in the logical order of this theme: 1) *Campus environment emphasized devoting time to academic work.* 2) *In class, I was asked to think about and apply what I learned in different settings* 3) *I worked hard to meet instructors' expectations* 4) *I was provided with opportunities to interact with faculty members outside of class.* 5) *The campus environment provided support to help me succeed academically.* While four benchmarks of student engagement were positively associated with an alumnus/as decision to donate, three benchmarks appear to be more evident in the theme. Those are: *Level of Academic Challenge, Student-Faculty Interaction, and Supportive Campus Environment*.

As a result of these findings, one logical interpretation is that alumna/us who were academically challenged in their educational goals and were supported by the campus environment would harbor positive feelings of satisfaction towards the institution. In return, those positive feelings or emotions of satisfaction they have with their university experience would later manifest themselves in the form of a donation. Clotfelter's (2003) and Gaier's (2005) studies which found that the donations that alumni made to their alma maters were highly correlated to their expressed satisfaction with their own academic experiences and other measures of satisfaction with the institution support the conclusions of this study. Mosser (1993) also asserts that past academic and social experiences shape satisfaction with the university. This study then extends these findings by examining the academic system in more detail. It specifically narrowed and targeted some specific areas within the academic arena. Those important areas are: a supportive academic environment, and a high level of expectation and interaction from faculty members.

These findings also fit within the construct of *Social Exchange Theory*, which has been used as a theoretical framework in previous research on alumni gift-giving behavior (Weerts and Ronca, 2007). *Social Exchange Theory* operates under the assumption that relationships are “give and take” among partners; more specifically, when defined in economic terms, it can be viewed as a fair exchange of costs and benefits needed to sustain the relationship. Essentially, within the context of this study, alumni support is associated with the alumna/us' perceptions about the value of his or her current and past experiences with the institution (Weerts and Ronca, 2007).

Additionally, as this study attempted to control for other gift-giving predictors, the results identified several donor characteristics that were consistent with other studies' findings on

alumni giving behavior. However, the more relevant finding may be that significant donor characteristics identified in this study were inconsistent with findings from previous studies. For example, this study did not find a significant relationship between alumni income levels and their decision to donate. This contrasts Taylor and Martin's (1995) study on alumni from a Research I, public university that found income to be one of the most powerful discriminating variables between donors and non-donors. Secondly, this study found that graduates of the decade 1972-1981 had the highest percentage of donors. In fact, the decades with the lowest percentages of donors were from 1962-1971 and 1952-61. This is in contrast with findings from Haddad (1986), Korvas (1984) and Keller (1982) who all found that alumni are more likely to be donors as years from graduation increase. Finally, this study also found that alumni who spent less time living on campus were more likely to give than their classmates, which is in contrast to studies by Miracle (1977) Robinson, (1994), Shim (2001), who that found years lived on campus to have a positive influence on donor giving behavior. The percentage differences between those who did not live on campus versus those who lived on campus for four years were relatively undistinguishable.

To reconcile these discrepancies, one explanation that may be important when considering alumni giving is the significant influence that institutional profile has on alumni gift-giving behavior. Specifically, in this case, the gift-giving behavior of an alumni population who attended a flagship, Research I university in the Midwest region of the U.S. may be completely different from those who attended a similar institution in a different region of the U.S. For example, private colleges and universities in other regions, specifically in the Northeast (e.g. Williams College) and in the West Coast (e.g. Stanford University), have obtained a higher level of prestige than the publicly funded universities. However in the Midwest, there are fewer private research universities that rival the institutional prestige of a state flagship or land grant

university. It would be interesting to compare the gift-giving behavior of alumni who donate to the flagship land-grant university in the State of Massachusetts (e.g. University of Massachusetts – Amherst) to those of the public flagship university in the State of Nebraska (e.g. University of Nebraska), for example. Ultimately, the underlying factor may reside in the level of perceived institutional prestige held by a college or university, especially when there are a limited number of institutions competing for the prestige within the region.

Implications

The findings from this study can potentially assist researchers, university fundraisers, and university administrators in several ways. This next section will reflect and expound further on the implications that the findings from this research may potentially have on those three areas.

Implications for research on alumni giving

As discussed in Chapter 1, numerous dissertations have researched whether college experience is related to giving, of those studies only a handful have included ‘student involvement’, or at least aspects of student involvement e.g. GPA, social or co/extra-curricular variables, and student organization membership (Baker, 1998; Miller and Casebeer, 1990; Dugan, Mullin, and Siegfried, 2000; Taylor & Martin, 2001). Unfortunately, when attempting to capture student experiences as a predictor, rarely have these studies focused on exploring the relationship of student engagement in specific academic or curricular activities and gift-giving behavior.

What emerges as being new from this study is that several areas within the academic system, defined by this study as student academic engagement, are positively related to an alumna/us’ decision to give back to their alma mater. Specifically, the findings from this study add to the body of literature by making a logical extension of the existing research on academic

experiences and alumni giving. Previous research has identified that alumni who donate have positive feelings toward their alma mater (Spaeth & Greely, 1970). Additional research by Mosser (1993) identified alumni giving as being related to satisfaction with the college experience including academic satisfaction. This finding also aptly fits within the results of Gaier's (2005) study that identified a positive significant relationship between alumni satisfaction and specific academic experiences.

The findings also reaffirm Volkwien and Parmley's (1999) theoretical model of alumni giving. Their model lists academic experiences as being a variable that influence alumni gift-giving behavior; therefore, this study helps substantiate their model by empirically identifying several key relationships between academic experiences and an alumna/us' decision to give. By reaffirming the theoretical model as well as expanding the literature, this study's findings could serve as a resource for future research that is seeking to drill further into the relationship between undergraduate academic experiences and alumni giving.

Additional research would be desirable to determine the causal ordering of the relationships among student-faculty interaction, satisfaction, and the student's views of the environment. That is, are students who are more ambitious in their academic pursuits more likely to engage with faculty about substantive matters? Or do certain experiences with faculty lead to higher levels of satisfaction with college and a willingness to devote more effort to educationally purposeful activities? It's also important to note, that of all the academic engagement variables measured in this study, student faculty-interaction was the strongest predictor of an alumnus decision to give. More light could be shed on this relationship by studying the phenomenon through a theoretical lens on mentoring.

Despite the confirmed characteristics of alumni gift-giving on which alumni giving are based, and the promising evidence from this and other studies, alumni gift-giving is a complex phenomenon. More work is needed to fully understand other areas that create strong emotional connections for alumni to the university, specifically within the academic arena. Therefore to further unveil the mystery, it is recommended that a more qualitative, ethnographic approach be taken to identify key characteristics that connect those factors that link alumni giving with an alum's academic experienced.

Since *capacity* and *inclination to give* continue to be significant predictors of alumni giving, then if one were to continue to use the theoretical and conceptual models of alumni gift-giving behavior it is recommended that more research be conducted to identify the connections between college experiences (involvement & engagement) and capacity to give as well as inclination to give.

Finally, it is recommended that future researchers limit the over-generalization of findings on alumni giving across various institutional types. Furthermore, it would be a tremendous contribution to the literature if a researcher were to organize previous findings on alumni giving according to their institutional type.

Implications for university fundraisers

In an effort to continually maintain an efficient system of leveraging resources for cultivating donations from their respective alumni populations, university development offices within these institutions strive to be strategic in determining who and how they will solicit alumni for donations. Since most of their practices are anecdotally and experientially driven; adding more empirically based predictors can assist in the efficacy of identifying prospective donors.

The findings encourage development offices to take stock of the means they currently implement to target prospective young alumni. A real potential exists for targeting those engaged alumni who felt they were challenged by their faculty and received the support they needed to accomplish their academic goals. This finding can be particularly important for the annual giving offices found within the institutions' fundraising organization. This could be accomplished through exit surveys of graduating alumni. Specifically, as a part of their alumni profile, the institution selected for this study has collected data a majority of their alumni as it relates to the various extracurricular activities they participated in as undergraduates. Therefore, similar to NSSE surveys, graduating students would be asked to respond to a set of questions that measured their level of academic engagement (e.g. how often to you meet with a faculty member outside of class?). This data would then be connected to their respective alumni profiles.

Annual giving offices are charged with soliciting and securing smaller sized (\$1000 and below) annual donations to the institution with the overarching goal of moving those donors from the annual giving level to major giving levels (\$10,000 and above). If charitable non-profit organizations can become a beneficiary early within an individual's life-cycle of giving then a greater chance exists for the organization to become a continual charitable priority for that individual or household. Subsequently, if the organization can continue to be an annual priority for those households or individuals, then as these donor's/alum's wealth accumulates with age the chances increase for a more substantive donation to be made on behalf of that organization in the future.

Therefore institutional development offices may find it beneficial to integrate these findings into their traditional methods for identifying and targeting prospective donating alumni. Specifically, it may prove beneficial for development offices to work with university

administrators to identify graduates who have experienced those positive academic engagement variables found to be significant in this study. Identifying these prospective donors may not translate into high level gifts, but they can help the institution become a philanthropic priority to those alumna/us who were satisfied with the quality of academic experiences.

Another implication this research can have on development offices is the importance of building their messaging or marketing strategies around the academic endeavors of the university. Articulating the financial need of an institution that stresses the importance challenging its students to excel, that encourages the interaction between faculty and students, and then provides the support students need to reach their academic goals may resonate with the alumni population who are satisfied with these facets of their college experiences.

Based upon the *Social Exchange Theory* referenced earlier in this study, it may also be more advantageous to take a more targeted approach for each school or college within the university. For example, alumni may be more likely to read publications from the university (hard-copy or on-line) if the content is specific to their degree area as opposed to more general areas of the institutions. A more targeted approach may generate an increase in support because alumni associate their professional and financial success to the specific degree they received from the institution.

Finally, it may be advantageous for development offices to work with the university's alumni association as well as the university's student affairs administration on exploring ways to identify those students who are more academically engaged as undergraduates. These three units may be best served by mapping the sphere of influence they each have staying connected with those students who have demonstrated higher levels of academic engagement. Identifying these students through potential surveys could help streamline efforts of getting these students

involved as alumni immediately following graduation and then targeting them for small annual gifts.

Once again, the findings from this study didn't identify any significant relationships between an alumnus/a's level of academic engagement and their total amount of financial contributions. Therefore, according to the results of this study, if development units/offices are looking for predictors to determine the size of alumni donations, level of academic engagement is not a predictor.

Implications for university administrators

Knowing that a positive association exists between the level of academic engagement an alumna/us has as an undergraduate and their decision to donate can be very useful for university administrators as well. Specifically, if administrators are to think of charitable contributions to their alma mater as a manifestation of the satisfaction or appreciation they had for the academic environment, then the potential exists for donating alumni to have identified specific academic areas that they felt contributed to their overall academic accomplishments. Therefore university staff and administrators may generate greater satisfaction from alumni if they were to allocate more time and resources to front line faculty and staff for ensuring that students are appropriately challenged and supported in the academic arena.

Furthermore, this research study may reinforce to university administrators the secondary benefit that student engagement can have on the long-term financial health of the institution. While the ultimate goal for supporting student engagement is to increase overall student success, administrators may be more inclined to provide additional resources to this effort when a direct return on investment can be empirically demonstrated. Once again, it is an important reminder that these findings are a secondary benefit for placing an emphasis on student engagement

activities. Steeper (2009) cautions that professionals in the field should never allow the institutional outcomes of fundraising to completely drive the decision making process. While it is important for university professionals to center their focus on the academic and personal development of the student, if an opportunity exists to benefit the student as well as the university, then leveraging university resources as a potential means of a return on investment would be advantageous for student development offices as well as the future financial welfare of the institution.

Conclusion

The strategic pursuit of procuring private donations for colleges and universities is not a new endeavor at these institutions; however, as a result of the challenging financial landscape facing public higher education, administrators at these institutions have been devoting more time and resources towards their fundraising efforts. A cursory review of the research literature on higher education fundraising over the past two decades also reveals an increased number of studies published on this topic. Specific focus has been placed on identifying a set of predictive characteristics that comprise the alumni donor profile. Therefore, in an effort to add to the existing body of literature on alumni giving, this study set out to measure the relationship between student academic engagement and alumni gift-giving behavior.

The findings from this research identified a relationship to exist between student academic engagement and an alumna/us' decision to donate; specifically, the results found that undergraduates who were challenged by their alma mater, interacted with their respective faculty members, and were provided with the institutional support they needed to accomplish their academic goals, were more likely to donate back to their alma mater. These findings correspond with the literature that satisfaction from one's undergraduate experiences serves as a foundation

of inclination for alumni to financially contribute to the university (Gaier, 2005). Specifically, this research helped bridge a gap in the literature by identifying specific areas within the academic experience that may lead to an alumna/us' overall satisfaction with their college experience. Although the relationship between academic engagement and alumni giving may not have been as robust as originally hoped, the findings were conclusive enough to contribute to the research literature and necessitate further research into other areas of student engagement and alumni giving, specifically as it relates to the mentoring role that faculty members serve for prospective donating alumni.

Additional findings from this research identified a set of predictive characteristics that correspond with findings from other studies; however, this study also identified a set of characteristics that were inconsistent with other findings as well. An in-depth review of these inconsistencies reveals the important aspect that institutional context and profile plays when analyzing alumni gift-giving behavior. Therefore it is strongly encouraged that careful consideration be taken into account before over generalizing characteristics of donating alumni.

Finally, from a more applied perspective, while there are certain donor characteristics or traits that fall beyond the scope of influence for the institution, the results of this study identified an area that university faculty, administrators, and staff can exercise a certain amount of influence or control. Working to enhance a student's level of engagement has many rewards, primarily student success; however, a secondary benefit from having a more academically engaged student is the increased potential that they may financially give back to their alma mater. Furthermore, by identifying another donor characteristic, these findings may assist university development offices become more strategic in their attempt to target future donating alumni.

BIBLIOGRAPHY

- Andreoni, J. (1990). Impure altruism and donations to public goods: a theory of warm-glow giving. *Economic Journal*, 100, 464–477.
- Ashcraft, R. F. (1995). An analysis of alumni donation and non-donation related to selected personal, involvement and outcome factors. Unpublished dissertation, Arizona State University, Tempe, AZ.
- Archibald, R.B., & Feldman, D.H. (2011). *Why does college cost so much?* New York: Oxford University Press.
- Archibald, R.B. & Feldman, D.H. (2012). The anatomy of college tuition. American Council on Education.
- Astin A.W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, 25 (4), 297-308.
- Astin, A. W. (1985). Chapter 6: Student Involvement: The Key to Effective Education. In *Achieving Educational Excellence* (133-157). San Francisco, CA: Jossey-Bass.
- Astin, A.W. (1993). *What matters in college? Four critical years revisited*. San Francisco, CA: Jossey-Bass.
- Baade, R. A., & Sundberg, J. O. (1996). What determines alumni generosity? *Economics of Education Review*, 15(1), 75-81.
- Baker, P. C. (1998). The relationship of selected characteristics and attitudes of professional school alumni to financial support within a public research university. Unpublished dissertation, State University of New York at Buffalo,

Buffalo.

- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182
- Baum, S., Little, K., & Payea, K. (2011). Trends in community college education: Enrollment, prices, student aid, and debt levels. *Trends in Higher Education Series*, CollegeBoard Advocacy & Policy Center, 3-31.
- Beeler, K. J. (1982). A study of predictors of alumni philanthropy in private universities. Unpublished dissertation, University of Connecticut, Storrs, CT.
- Bristol, R. (1990). The life cycle of alumni donations. *Review of Higher Education*, 13(Summer), 503–518.
- Brittingham, B. E., & Pezzullo, T. R. (1990). The study of money; What we know and what we need to know about college fundraising. *Currents*, 16(3).
- Bruggink, T. H., & Siddiqui, K. (1995). An econometric model of alumni giving: A case study for a liberal arts college. *The American economist*, 39(2), 53-60.
- Bureau of Labor Statistics. (2011). National Industry-Specific Occupational Employment and Wage Estimates produced by the U.S. Retrieved March 28, 2013, from http://www.bls.gov/oes/current/oes_nat.htm#00-0000
- Cheslock, J. J., & Gianneschi, M. (2008). Replacing State Appropriations with Alternative Revenue Sources: The Case of Voluntary Support. *Journal Of Higher Education*, 79(2), 208-229.
- Chickering, A.W., & Gamson, Z.F. (1987). Seven principles for good practice in undergraduate education. *AAHE Bulletin*, 39(7).

- Clotfelter, C. T. (1990). *The impact of tax reform on charitable giving: A 1989 perspective* (No. w3273). National Bureau of Economic Research.
- Clotfelter, C. T. (2003). Alumni giving to elite private colleges and universities. *Economics of Education Review*, 22(3).
- Conley, A. T. (1999). Student organization membership and alumni giving at a public, research I university. (Indiana University). ProQuest Dissertations and Theses, 172-172 p. Retrieved from <http://search.proquest.com/docview/304506245?accountid=14556>. (304506245).
- Connolly, M. S., & Blanchette, R. (1986). Understanding and predicting alumni giving behavior. In J. A. Dunn, Jr. (Ed.), *Enhancing the Management of Fund Raising*. San Francisco: Jossey-Bass Inc.
- Conner, D. K. (2005). Factors that Affect Alumni Giving at a Southeastern Comprehensive University. (Clemson University). ProQuest Dissertations and Theses, 64-64 p. Retrieved from <http://search.proquest.com/docview/305009624?accountid=14556>. (305009624).
- Cook, W. B., & Lasher, W. F. (1996). Toward a theory of fund raising in higher education. *The Review of Higher Education*, 20(1), 33-51.
- Cordes, J. (2001). The Cost of Giving: How Do Changes in Tax Deductions Affect Charitable Contributions? March (No.) In the Seminar Series: *Emerging Issues in Philanthropy*.
- Council for Aid to Education. 2010. 2009 Voluntary Support of Higher Education. New York: Council for Aid to Education.
- Council for Aid to Education (CAE) homepage. VSE 2012 survey press release with tables. Retrieved July 30, 2013 from http://www.cae.org/content/pdf/VSE_2012_Press_Release.pdf

- Council for Aid to Education. (2013). 2013 Voluntary Support of Education Survey. New York: Council for Aid to Education.
- Creswell, J.W. (2008). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. Upper Saddle River, NJ: Pearson Education Inc.
- Curti, M., & Nash, R. (1965). Philanthropy in the Shaping of American Higher Education. New Brunswick: Rutgers University Press.
- Dillman, D. A. (1978). Mail and telephone surveys (Vol. 3). New York: Wiley.
- Dillman, D.A., Smyth, J.D., & Christian, L.M. (2009). Internet, mail, and mixed-mode surveys: The tailored design method (3rd ed.) Hoboken, NJ: John Wiley & Sons, Inc.
- Drezner, N. D. (2011). Special Issue: Philanthropy and Fundraising in American Higher Education. ASHE Higher Education Report, 37(2), 1-155.
- Dugan, K., Mullin, C., & Siegfried, J. (2000). Undergraduate financial aid and subsequent giving behavior. Williams Project on the Economics of Higher Education Discussion Papers. DP-57.
- Eiszler, C. F. (2002). College students' evaluations of teaching and grade inflation. Research in Higher Education, 43(4), 483-501.
- Freeman, K., & Cohen, R. T. (2001). Bridging the Gap between Economic Development and Cultural Empowerment HBCUs' Challenges for the Future. Urban Education, 36(5), 585-596.
- Gaier, S. E. (2001). Increasing alumni involvement and alumni financial support through a student alumni association.

- Gaier, S. (2005). Alumni satisfaction with their undergraduate academic experience and the impact on alumni giving and participation. *International Journal of Educational Advancement*, 5(4), 279-288.
- Gallo, P. J., & Hubschman, B. (April 2003). The relationships between alumni participation and motivation on financial giving. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
- Gardner, P. (1975). A Study of the Attitudes of Harding College Alumni with an Emphasis on Donor and Non-donor Characteristics. *Dissertation Abstracts International*, 36(03), 1295. (UMI No. 7519285)
- Gasman, M. (2001). Charles S. Johnson and Johnnetta Cole: Successful role models for fundraising at Historically Black Colleges and Universities. *The CASE International Journal of Educational Advancement*, 1(3), 237-252.
- Gasman, M. (2010). A growing tradition? Examining the African American family foundation. Retrieved from Aspen Institute:
http://www.aspeninstitute.org/sites/default/files/content/docs/pubs/A_Growing_Tradition.pdf
- Gunsalus, R. (2004). "The relationship of institutional characteristics and giving participation rates of alumni," *International Journal of Educational Advancement*, 5, 2,
- Haddad, F. D. (1986). An analysis of the characteristics of alumni donors and nondonors at Butler University. Unpublished dissertation, West Virginia University, Morgantown, WV.
- Harbaugh, W. T. (1998a). The prestige motive for making charitable transfers. *American Economic Review*, 88(2), 277-282.

- Harbaugh, W. T. (1998b). What do donations buy? A model of philanthropy based on prestige and warm glow. *Journal of Public Economics*, 67(2), 269-284.
- Holmbeck, G. N. (2002). Post-hoc probing of significant moderational and mediational effects in studies of pediatric populations. *Journal of pediatric psychology*, 27(1), 87-96.
- Holmbeck, G. N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology*, 65(4).
- Holmes, J. (2009). Prestige, charitable deductions and other determinants of alumni giving: Evidence from a highly selective liberal arts college. *Economics of Education Review*, 28(1), 18-28.
- Hossler, D., Jon, P. L., Ramin, J., Westfall, S., & Irish, S. (1997). State funding for higher education. *The Journal of Higher Education*, 68(2), 160-190. Retrieved from <http://search.proquest.com/docview/205336971?accountid=14556>
- Hovey, H. A. (1999). State spending for higher education in the next decade: The battle to sustain current support National Center for Public Policy and Higher Education, 152 North Third Street, Suite 705, San Jose, CA 95112. Retrieved from <http://search.proquest.com/docview/62424944?accountid=14556>
- House, M. L. (1987). Annual fund raising in public higher education: The development and validation of a prediction equation. Unpublished dissertation, University of Florida, Gainesville, FL.
- Hoyt, J. (2004). Understanding Alumni Giving: Theory and Predictors of Donor Status. Paper presented at the annual forum of the Association for Institutional Research (AIR) (44th, Boston, MA, May 28-June 2, 2004).

- Hu, S., & Kuh, G. D. (2002). Being (dis) engaged in educationally purposeful activities: The influences of student and institutional characteristics. *Research in Higher Education*, 43(5), 555-575.
- Ikenberry, J. P. (2000). Alumni institutional commitment: Connecting student involvement with alumni involvement and institutional commitment (Doctoral dissertation, The Pennsylvania State University, 1999). *Dissertation Abstracts International*, 60(7), 2402A.
- Kelly, K. S. (1998). *Effective fund-raising management*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc., Publishers.
- Keating, B., Pitts, R., & Appel, D. (1981). United Way contributions: coercion, charity or economic self-interest? *Southern Economic Journal*, 47(January), 816–823.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling*. 2nd ed. The Guilford Press, New York, NY 10012.
- Klostermann, B. K. (1995). Development and concurrent validity of a motivation to give scale. (Doctoral Dissertation, Southern Illinois University at Carbondale).
- Korvas, R. J. (1984). The relationship of selected alumni characteristics and attitudes to alumni financial support at a private college. Unpublished Ph.D. dissertation, University of Missouri-Kansas City, Kansas City.
- Kuh, G.D. (2001). Assessing what really matters to student learning: Inside the National Survey of Student Engagement. *Change*, May/June, 10-66.
- Kuh, G.D. (2003). What we're learning about. *Benchmarks for effective educational practices*. *Change*, March/April 2003.
- Kuh, G.D. (2004). *The National Survey of Student Engagement: Conceptual framework and overview of psychometric properties*. Bloomington, IN: Indiana University Center for

- Postsecondary Research and Planning. Retrieved from
http://nsse.iub.edu/2004_annual_report/pdf/2004_Conceptual_Framework.pdf
- Kuh, G.D. (2007). Perspectives on Accountability. Promises and pitfalls of institutional transparency. *Change*, 31-33.
- Kuh, G.D. (2009). The National Survey of Student Engagement: conceptual and empirical foundations. *New Directions for Institutional Research*, 141, p. 5-20, Spring 2009.
- KU Endowment website. Retrieved February 28th, 2014.
<http://www.kuendowment.org/s/1312/endowment/index.aspx?sid=1312&gid=1&pgid=57>
- 2
- Lawley, C. D. (2008). Factors that affect alumni loyalty at a public university. *Purdue University*). ProQuest Dissertations and Theses, , 113-n/a. Retrieved from
<http://search.proquest.com/docview/304500738?accountid=14556>. (304500738).
- Mael, F., & Ashforth, B. E. (1992). Alumni and their alma mater: a partial test of the reformulated model of organizational identification. *Journal of Organizational Behavior*, 13, 103–123.
- McLendon, M. K., Hearn, J. C., & Mokher, C. G. (2009). Partisans, professionals, and power: The role of political factors in state higher education funding. *The Journal of Higher Education*, 80(6), 686–713.
- McNally, F. E. (1985). An analysis of alumni philanthropy related to personal, academic, and social characteristics. Unpublished Ed.D. dissertation, University of San Francisco, San Francisco.
- Mehl, C. L. (1995). Demographic and attitudinal characteristics of alumni and nonalumni planned giving contributions to the University of Akron. Unpublished dissertation, University of Akron, Akron, OH.

- Miller, M. T., & Casebeer, A. L. (1990). Donor characteristics of college of education alumni: Examining undergraduate involvement.
- Miracle, W.D. (1977). Differences between givers and nongivers to the University of Georgia annual fund. *Dissertation Abstracts International*, 38(8), 4489.
- Monks, J. (2003). Patterns of giving to one's alma mater among young graduates from selective institutions. *Economics of Education Review*, 22(2), 121-130.
- Mortenson, T. (2004, January). State tax fund appropriations for higher education, FY1961-FY2004. Postsecondary Education OPPORTUNITY (No. 139). Oskaloosa, IA: Mortenson Research Seminar on Public Policy Analysis of Opportunity for Postsecondary Education. Retrieved from http://www.postsecondary.org/ti/ti_43.asp
- Mosser, J. W. (1993). Predicting alumni/ae gift-giving behavior: A structural equation model approach. University of Michigan). *ProQuest Dissertations and Theses*, 181-181 p. Retrieved from <http://search.proquest.com/docview/304060153?accountid=14556>.
- NSSE (n.d.). NSSE benchmarks of effective educational practice. Retrieved from http://nsse.iub.edu/pdf/nsse_benchmarks.pdf.
- National Association of State Budget Officers (NASBO). 2009. State Expenditure Report 2009. Washington, DC: NASBO.
- Newman, F., Couturier, L., & Scurry, J. (2004). *The future of higher education: Rhetoric, reality, and the risks of the market*: Jossey-Bass San Francisco.
- Nichols, J. (1990). *Changing demographics: Fund raising in the 1990s*. Chicago, IL: Bonus Books.
- NSSE (2010). NSSE administration modes. Does paper or web matter? Other quality indicators – mode analysis. Retrieved from

http://nsse.iub.edu/pdf/psychometric_portfolio/OtherIndicators_ModeEffect_2009.pdf

- Odom, T. L. (1995). Predictors of alumni philanthropy in a public university in south Mississippi. Unpublished dissertation, University of Southern Mississippi.
- Goldin, C., Katz, L. F., & Kuziemko, I. (2006). The homecoming of American college women: The reversal of the college gender gap (No. w12139). National Bureau of Economic Research.
- Okunade, A. A., & Berl, R. L. (1997). Determinants of charitable giving of business school alumni. *Research in Higher Education*, 38(April), 201–214.
- Olsen, K., Smith, A. L., & Wunnava, P. V. (1989). An empirical study to the life-cycle hypothesis with respect to alumni donations. *American Economist*, 33(2), 60-63.
- Pace, R.C. (1984). Measuring the quality of college student experiences. An account of the development and use of the college student experiences questionnaire. Higher Education Research Institute, Graduate School of Education, University of California, Los Angeles.
- Pampel, F. C. (2000). Logistic regression: A primer. Sage University Papers Series on Quantitative Applications in the Social Sciences, 07-132. Thousand Oaks, CA: Sage.
- Patouillet, L. D. (2000). Alumni association members: Attitudes towards university life and giving at a public AAU institution. (Doctoral Dissertation, University of Pittsburgh).
- Petrocelli, J. V. (2003). Hierarchical Multiple Regression in Counseling Research: Common Problems and Possible Remedies. *Measurement & Evaluation In Counseling & Development (American Counseling Association)*, 36(1), 9.
- Pfeffer, J., & Salancik, G. R. (1978). The external control of organizations: A resource dependence perspective. New York: Harper & Row Publishers.

- Pike, & Kuh, G.D. (2005). A typology of student engagement for American colleges and universities. *Research in Higher Education*, 46(2), March.
- Porter, S.R. (2006). Institutional structures and student engagement. *Research in Higher Education*, Vol. 47(5), 2006.
- Rooney, P. M. (1999). A better method for analyzing the costs and benefits of fundraising at universities. *Nonprofit Management and Leadership*, 10(1), 39-56.
- Robinson, D. M. (1994). A study of selected characteristics of alumni financial support to their alma mater. (Unpublished doctoral dissertation). Grambling State University, Grambling, Louisiana. (Publication No. AAT 9639897).
- Schervish, P. G., & Havens, J. J. (1997). Social participation and charitable giving: a multivariate analysis. *Voluntas*, 8(3), 235–260.
- Schumacker, R.E., & Lomax, R.G. (2004). A beginner's guide to structural equation modeling. 2nd edition, Mahawah, NJ: Lawrence Earlbaum Associates, Publishers.
- Shim, J. M. (2001). Relationship of selected alumnae characteristics to alumnae financial support at a women's college. (Unpublished doctoral dissertation). University of Florida, Gainesville, Florida.
- Scott, W. R. (2003). *Organizations: Rational, natural, and open systems* (5th ed. ed.). Upper Saddle River, NJ: Prentice Hall.
- SHEEO (2012). State Higher Education Finance Report FY 2012.
http://www.sheeo.org/sites/default/files/publications/SHEF_12_Press_Release.pdf
- Shadoian, H. L. (1989). A study of predictors of alumni philanthropy in public colleges. Unpublished Ph.D. dissertation, University of Connecticut, Storrs.
- Simone, S. A. (2009). Examining the influence of selectivity on alumni giving at public

- universities: A dynamic panel modeling approach. University of Maryland, College Park). ProQuest Dissertations and Theses, , 183. Retrieved from <http://search.proquest.com/docview/304924960?accountid=14556>. (304924960).
- Steeper, D. W. (2009). The effects of selected undergraduate student involvement and alumni characteristics on alumni gift-giving behavior at the University of Virginia. University of Virginia). ProQuest Dissertations and Theses, , 223. Retrieved from <http://search.proquest.com/docview/305011140?accountid=14556>. (305011140).
- Steinberg, R, Wilhelm, M., Rooney, P., Brown, E. (2002). "Inheritance and Charitable Donations." Department of Economics, Indiana University.
- Steinberg, R. (1994). "Economics and Philanthropy: A Marriage of Necessity for Nonprofit Organizations." In J. M. Greenfield (ed.). Financial Practices for Effective Fundraising. New Directions for Philanthropic Fundraising, no. 3. San Francisco: Jossey-Bass.
- Tandberg, D. A. (2010). Politics, interest groups and state funding of public higher education. *Research in Higher Education*, 51(5), 416-450. doi: <http://dx.doi.org/10.1007/s11162-010-9164-5>
- Taylor, A. L., & Martin, J. C. J. (1993). Predicting alumni giving at a public research university. Paper presented at the Annual Forum of the Association for Institutional Research, Chicago, IL.
- Taylor, A. L., & Martin, J. C. J. (1995). Characteristics of alumni donors and nondonors at a Research I, public university. *Research in Higher Education*, 36(3), 293-302.
- Thomas, J. A., & Smart, J. (2005). The relationship between personal and social growth and involvement in college and subsequent alumni
- Thelin, J. (2004). *A History of American Higher Education*. Baltimore: The Johns Hopkins

Press.

Tinto, V. (1993). *Leaving College*. Chicago: University of Chicago Press.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research, *Review of Educational Research*, 45, 89-125.

Toutkoushian, R.K. (2006). An Economist's Perspective on the Privatization of Public Higher Education. Paper presented at the State of the Art Conference, Institute of Higher Education, University of Georgia, 7-9 September.

Tromble, W.W. (1998). *Excellence in Advancement: Applications for Higher Education and Nonprofit Organizations*. Gaithersburg, Md.: Aspen Publishers.

Volkwein, J. F., and Parmley, K. (1999). Testing why alumni give: A model of alumni gift-giving behavior. In D. Shoemaker (Ed.) *Research in Alumni Relations: Surveying Alumni to Improve Your Programs*, pp. 59-62, Washington D. C.: CASE Books.

Vroom, V. H. (1964). *Work and motivation*. New York: Wiley.

Ward, H. (2004). The impact of collegiate involvement on african-american alumni giving. Bowling Green State University). ProQuest Dissertations and Theses, , 275-275 p. Retrieved from <http://search.proquest.com/docview/305218079?accountid=14556>. (305218079).

Webber, D. and Ehrenberg, R. (2010). "Do Expenditures Other Than Instructional Expenditures Affect Graduation and Persistence Rates in American Higher Education?" *Economics of Education Review* 29 (6): 947-958

Weerts, D. J., & Ronca, J. M. (2006). Taking it to the next level: Characteristics of alumni donors who increase levels of giving to their alma mater. Paper Presented

at the Association for the Study of Higher Education Meeting.

Weerts, D. J., & Ronca, J. M. (2007). Profiles of supportive alumni: Donors, volunteers, and those who “Do it all”. *International Journal of Educational Advancement*, 7(1), 20-34.

Willemain, T. R., Goyal, A., Van Deven, M., & Thukral, I. S. (1994). Alumni giving: The influences of reunion, class, and year. *Research in Higher Education*, 35(5), 609-629.

Wilson, R. (2008). College Too Pricey? Don't Blame Faculty Pay. *The Chronicle of Higher Education*, 55(11), 7.

Wolf-Wendel, L., Ward, K., & Kinzie, J. (2009). A tangled web of terms: The overlap and unique contribution of involvement, engagement, and integration to understanding college student success. *Journal of College Student Development*, 50(4), 407-428.

Young, P. S., & Fischer, N. M. (1996, May 6, 1996). Identifying undergraduate and postcollege characteristics that may affect alumni giving. Paper presented at the Annual Forum of the Association for Institutional Research, Albuquerque, NM.

Voluntary Support of Education (2004). Taking from website on 3/23/2014

http://www.rand.org/content/dam/rand/www/external/news/press.05/03.02.pdf/RAND_VSE_2004.pdf

APPENDICES

Appendix A

Survey Instrument

Appendix B

Factor Analysis – Inclination to Give Variables

How would you rate your educational experience as an undergraduate?	.711
How well did your academic experiences as an undergraduate prepare you for your career?	.641
If I were making a decision today about where to attend college I would still choose my alma mater?	.615
How would you evaluate the University's academic reputation on a national scale?	.516
How often do you read publications from the University (hard copy as well as on-line)?	.589
To the best of your recollection, during the last five years, how many University sponsored events have you attended?	.374
To what extent do you perceive the University to need financial support from its alumni?	.467
If you were to consider the philanthropic priorities that are important to you and your family, where would your alma mater fit on the list?	.564

Appendix C

Correspondence to Study Participants

Date

Name

Address

City, State, Zip

Dear (name),

Greetings from the University of ██████! My name is Tylerr Ropp and I am a doctoral student in the KU School of Education completing my final requirements towards earning my Ph.D. in Higher Education Administration. For my dissertation research, I am conducting a study of the relationship between alumni academic experience as undergraduate students at ██████ and their level of financial contributions donated to ██████.

With this research topic in mind, I ask for your participation in an upcoming survey that will not only assist in the completion of my degree, but will help advance the research on alumni giving.

Over the next several days you will receive a phone call asking for your participation in a survey designed to attain feedback on your undergraduate and alumni experiences at ██████, as well as your past decisions donate funds to ██████. The caller is an undergraduate student assisting me with data collection and the data will only be used for my dissertation.

I am writing in advance of our telephone call because we have found that many people appreciate being advised that a research study is in process and that they will be called. Altogether the interview should only take 8-10 minutes. If by chance we should happen to call at an inconvenient time, please feel free to tell the interviewer and he/she will be happy to call back later.

To help accomplish the objectives of this study, ██████ Endowment has provided me with the necessary contact information of a targeted population of ██████ alumni. Members of this targeted population will be randomly selected and contacted to participate in the telephone survey.

After the telephone surveys have been completed, under the strictest confidence, the Assistant Vice President of Information Systems at ██████ Endowment will combine your individual survey responses with your giving records at ██████.

Once your responses are matched with your giving history, your name will be deleted from the survey and each survey/giving data record will be assigned an ID number. As the researcher I will only have access to the ID number. Results from the survey will be aggregated and statistical analyses performed to answer my research questions. At no time will individual names be associated with the reporting of this study.

Information provided by the [REDACTED] Endowment Association is contingent upon all members of the research team signing a confidentiality agreement form. This form is intended to emphasize the importance of protecting the confidentiality of information that is either confidential by law or by [REDACTED] Endowment policy.

Finally, at no time will the University of [REDACTED] or any affiliate organization of the University of [REDACTED] (e.g. the [REDACTED] Alumni Association or the [REDACTED] Endowment Association) have access to the raw data collected from this study. They will only be provided with aggregated, summary results.

Your help, and that of other alumni of the University of [REDACTED] asked to participate, is essential to the study's success. I greatly value and appreciate your support.

If you have any questions, please don't hesitate to ask our interviewer or you may call me at [REDACTED] [REDACTED] - [REDACTED] or email me at tyropp@ku.edu.

Thank you,

Tylerr Ropp
Ph.D. candidate and Researcher

Dear [REDACTED],

A few days ago you should have received a letter informing you of a dissertation study I am conducting at the University of [REDACTED]. The purpose of this study is to explore the relationship between alumni academic experience as undergraduate students at [REDACTED] and their decision to financially donate to [REDACTED].

As a graduate of [REDACTED], and a participant in this research study, I am interested in capturing your thoughts and perceptions about the academic experiences you had as an undergraduate student. I am also interested in capturing your thoughts and experiences as a [REDACTED] alum.

Your participation for this study is strictly voluntary. I, as the researcher, have taken careful steps to ensure the confidentiality of your personal information and responses throughout every stage of this project. Below you will find a randomly identification number. This identification number has been assigned by the Assistant Vice President of Information Systems at [REDACTED] Endowment. The survey found at the link below will prompt you to enter this ID number on the first page of the survey. Once the surveys have been completed, under the strictest confidence, the AVP for Information Systems at [REDACTED] Endowment will combine your individual survey responses with your giving records at [REDACTED].

Once your responses are matched with your giving history, any personal identification information will be deleted from the survey responses. At no point throughout the course of this study will your survey responses and philanthropic data be linked to any personal information. Results from the survey will be aggregated and statistical analyses performed to answer my research questions.

At no time will the University of [REDACTED] or any affiliate organization of the University of [REDACTED] (e.g. the [REDACTED] Alumni Association or the [REDACTED] Endowment Association) have access to the raw data collected from this study. They will only be provided with aggregated, summary results.

Your help, and that of other alumni of the University of [REDACTED] asked to participate, is essential to the study's success. I greatly value and appreciate your support. If you have any questions, please don't hesitate to call me at (785) 832-7464 or email me at tyropp@ku.edu.

Identification Number: <<ID_Number>>

Click on link to access survey:

Thank you again for your participation in the study.

Tylerr Ropp
Ph.D. candidate and Researcher

SURVEY INSTRUMENT

Alumni Attitudes and Involvement

First I would like to ask you a few questions regarding your perceptions of your alma mater.

1. On a scale of 1 to 7, how would you rate your educational experience as an undergraduate at your alma mater?
(Poorly = 1 2 3 4 5 6 7 = Excellent)
2. On a scale of 1 to 7, how well did your academic experiences as an undergraduate your alma mater prepare you for your career? (Poorly = 1 2 3 4 5 6 7 = Very Well)
3. Please indicate your level of agreement with the following statement:
If I were making a decision today about where to attend college, I would still choose [redacted]. Do you: agree, somewhat agree, somewhat disagree, or disagree?
4. Next, I would like to ask you to evaluate the academic reputation of your alma mater on a national scale? Would you say it is: excellent, above average, average, below average, or poor?
5. How often do you read publications from the University (*hard copy as well as online*)? Would you say: never, rarely, occasionally, often, or very often?
6. To the best of your recollection, during the last five years, how many [redacted] sponsored events have you attended (e.g. *Alumni Event (Regional/Local), Athletic Event, Lecture, Theater Production, etc.*)? None, 1-10, 11-20, 21-30, 31-40
7. To what extent do you perceive your alma mater to need financial support from its alumni? Would you say: to a large extent, to some extent, or to no extent?
8. If you were to consider the philanthropic priorities that are important to you and your family, where would your alma mater fit on the list? Would you say it's: your top priority, in your top three priorities, or below your top three priorities?

Student Involvement

The next set of questions is designed to explore your level of involvement as a student in extra-curricular activities. Extra-curricular activities are defined as those out-of-class experiences that either complemented your academic pursuits (e.g. undergraduate internships) or added to your undergraduate experience (e.g. student organizations or activities).

9. Did you participate in any extra-curricular activities as an undergraduate at [redacted] (e.g. student organizations, student government, clubs, university related activities, etc.)?
Yes or No

IF YES.

- a. I would describe myself as *not involved, somewhat involved, or very involved* in extra-curricular activities. (e.g. clubs, student organizations or student activities.)
- b. On a scale of 1 to 7 how would you rate your extra-curricular experiences at ■■■: (Poor = 1 2 3 4 5 6 7 = Excellent)

10. Were you a member of a fraternity or a sorority as an undergraduate at ■■■?
Yes or No

11. How many years did you live on campus as an undergraduate at ■■■?
0,1,2,3,4

12. When you were an undergraduate at ■■■, how often did you attend athletic events:
Would you say: Never, Rarely, Occasionally, Often, or Very Often?

13. As an undergraduate, did you have an on-campus job?

IF YES.

13a. On average, how many hours per week did you work on campus for pay?
None, 1-10, 11-20, 21-30, 31-40

14. As an undergraduate, did you have an off-campus job?

IF YES.

14a. On average, when you were an undergraduate at ■■■ how many hours per week did you work off campus for pay?
None, 1-10, 11-20, 21-30, 31-40

(Student Academic Engagement)

The next set of questions is designed to explore your level of academic engagement as an undergraduate student at ■■■. Some of these questions are also designed to explore the level of institutional support devoted towards fostering student learning. Each question is phrased in the form of a statement in which you may respond by indicating whether you: *Agree, Somewhat Agree, Somewhat Disagree, or Disagree,*

15. When I was an undergraduate I worked harder than I thought I could to meet my instructors' expectations. Would you say you: agree, somewhat agree, somewhat disagree, disagree?

16. When I was an undergraduate I spent a lot of time preparing for class. Would you say you: agree, somewhat agree, somewhat disagree, disagree?

17. When I was an undergraduate the campus environment emphasized spending significant amounts of time studying on academic work. Would you say you: Would you say you: agree, somewhat agree, somewhat disagree, disagree?
18. In class I was asked to think about and apply what I learned in different settings (e.g.) Would you say you: agree, somewhat agree, somewhat disagree, disagree?
19. I discussed ideas from readings with others outside of class. Would you say you: agree, somewhat agree, somewhat disagree, disagree?
20. I worked with other classmates to solve class assigned problems. Would you say you: agree, somewhat agree, somewhat disagree, disagree?
21. I was provided with opportunities to interact with faculty members outside of class. Would you say you: agree, somewhat agree, somewhat disagree, disagree?
22. I received a lot of feedback (written or oral) from faculty on my academic performance. Would you say you: agree, somewhat agree, somewhat disagree, disagree?
23. I discussed my career plans with a faculty member or advisor. Would you say you: Would you say you: agree, somewhat agree, somewhat disagree, disagree?
24. The campus environment provided me with the support I needed to help me succeed academically. Would you say you: agree, somewhat agree, somewhat disagree, disagree?
25. The campus environment provided opportunities to help me cope with non-academic responsibilities (e.g. work, family, etc.) Would you say you: agree, somewhat agree, somewhat disagree, disagree?
26. When I was an undergraduate I interacted with students of different religious beliefs, political opinions, or values. Would you say you: agree, somewhat agree, somewhat disagree, disagree?
27. I was provided opportunities to integrate and apply the knowledge I gained in the classroom to other settings. (e.g. Internships, field experiences, study abroad, learning community, etc.) Would you say you: agree, somewhat agree, somewhat disagree, disagree?

(Demographic Information)

Only six questions remaining in this survey. These questions are considered to be more demographic in nature:

28. What is your primary occupation?

29. Are you married or do you have a domestic partner who lives with you?

Yes or No

30. What is your race/ethnicity?

31. How many children are currently dependent upon you for financial support?

0

1

2

3

4 or more

32. What is the highest level of education you ever completed?

Response options: Some college but less than a bachelor's degree, Associate's degree (A.A., A.S.), Bachelor's degree (B.A., B.S., etc.), Master's degree (M.A., M.S., etc.), Doctoral or professional degree (Ph.D., J.D., M.D., etc.)

33. If you have a spouse/partner what's the highest level of education your spouse/partner ever completed?

Response options: Some college but less than a bachelor's degree, Bachelor's degree (B.A., B.S., etc.), Master's degree (M.A., M.S., etc.), Doctoral or professional degree (Ph.D., J.D., M.D., etc.)

This concludes our survey. Thank you again for your time. Should you have any questions about this project or your participation in it you may ask for the lead researcher, Tylerr Ropp, at 785-832-7464 or at tyropp@ku.edu. You may also contact the faculty supervisor, Dr. Susan Twombly, stwombly@ku.edu at the KU School of Education. If you have questions about your rights as a research participant, you may call the Human Subjects Protection Office at (785) 864-7429 or email irb@ku.edu.