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The Effect of Volunteering on Philanthropic Giving to American Higher Education

by

Jess T. Metzmeier

A dissertation submitted in partial fulfillment
of the requirements for the degree of Doctor of Philosophy
in Leadership in Higher Education

Chair: Dr. Michael Vetter

Dr. Grant Smith

Dr. Rick Blackwell

Abstract

As institutions of higher education seek to increase their ability to secure philanthropic gifts from alumni, many have sought to utilize alumni volunteer programs to engage alumni and induce greater levels of giving. To assess the efficacy of this strategy, this study considered the giving rates of first-time alumni participants in a semester-long alumni-student career mentor program as measured over three periods: the year prior to their first year as a mentor, their first year as a mentor, and the year following their first year as a mentor. Using a repeated measure ANOVA statistical method, the study sought to determine if there is a statistically significant variance in the giving rates of these volunteers across the three measures. The study also explored the influence of a participant's prior giving behavior and subsequent volunteer behavior as it relates to giving variance. The study found that there was a statistically significant increase in the annual giving of alumni volunteers as measured from the year prior to their volunteer experience to the year following their volunteering. However, the analysis suggests that the timing of that significant growth within the three-year period is somewhat dependent on whether the individual was already giving financially prior to the volunteer experience. The findings suggest that the volunteer experience was a complement to giving for the overall study sample, but may have had a temporary substitute effect for those who were already financially supporting the institution.

Keywords: *giving, volunteering, alumni engagement*

Dedication

I gratefully dedicate this dissertation to my wife, Sarah Metzmeier. You encouraged me, commiserated with me, pushed me, and put up with me. On my first day of class in the Ph.D. program, you put a note on my books that simply said, “You are amazing & you can do this.” Your support and encouragement never waned. Throughout this process, as always, you were stronger, smarter, and more resilient than me, and you had more faith in me than I ever had in myself. Thank you, Sarah. I love you.

I also dedicate this dissertation to my two children, Luke Metzmeier and James Metzmeier. You grew up so much during my years in this Ph.D. program. Sadly, I missed many moments due to class meetings and paper writing. Still other moments, when I was physically present, I was often preoccupied and stressed. Through it all, you forgave my absence, encouraged my effort, and cheered my success. As I remember these years of my life in a Ph.D. program, I believe I will always remember most fondly the moments when I raced from class to join you and your mom at an event or outing. Though I would frequently be running behind, you were never disappointed that I was late. You were always simply excited that I was there. I am incredibly proud of you and thankful that I get to be your dad. Thank you, Luke and James. I love you.

Finally, I want to dedicate this dissertation to my parents, Bill and Joan Metzmeier, and my in-laws, Chris and Marcia Hermann. Mom and Dad, you have believed in me and supported me with all your strength, hope, and ability for as long as I can remember. I am who I am because of you. Chris and Marcia, you have cared and supported me as a son for most of my adult life, and you have helped me to have the most amazing family any person could imagine. When I told all four of you that I was going to pursue this Ph.D., you cheered and said you would do everything you could to help me. And you did. From childcare, to transportation, to supportive conversations, you were always there. I am extraordinarily grateful for you and thankful to be your son.

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Table of Contents

Abstract.....	2
Dedication.....	3
Acknowledgement.....	4
Table of Contents.....	5
Chapter 1: Introduction.....	7
Overview of Study and Statement of Problem.....	7
Purpose of Study.....	13
Research Questions and Hypotheses.....	14
Context.....	16
Methods.....	17
Conceptual Framework.....	18
Significance.....	20
Assumptions and Limitations.....	20
Key Terms.....	21
Chapter 2: Literature Review.....	24
Overview.....	24
Theoretical Framework.....	26
Determinants of Monetary Support.....	30
Personal Factors Influencing Giving.....	30
The Influence of Past College Experience on Giving.....	31
Current Institutional Connection and Giving.....	35
Determinants of Non-Monetary Support.....	38
Relationship of Giving Time and Giving Money.....	40
Alumni Career Program and Giving.....	44
Summary and Significance.....	48
Research Questions and Hypotheses.....	49
Chapter 3: Methodology.....	52
Overview and Context.....	52
Research Questions.....	53
Hypotheses.....	54
Participants.....	54
Sampling and Approach.....	56
Data Collection.....	58
Analysis Design.....	60
Model.....	62
Summary.....	63
Chapter 4: Results.....	65
Overview.....	65
Post-hoc Power Analysis.....	66
Contextual Baseline: Effect of Time on Giving.....	66
Analysis Results.....	68
Research Question 1.....	70
Research Question 2.....	71
Research Question 3.....	75

Model.....	76
Effect Sizes.....	78
Non-parametric Check of Data.....	78
Summary.....	80
Chapter 5: Discussion.....	85
Overview.....	85
Purpose.....	87
Research Questions.....	89
Findings.....	89
Synthesis of Findings.....	91
Research Question 1.....	92
Research Question 2.....	93
Research Question 3.....	96
Implications.....	97
Study Limitations.....	99
Future Research.....	100
References.....	101

The Effect of Volunteering on Philanthropic Giving to American Higher Education

Chapter 1

Introduction

Overview of Study and Statement of Problem

From the inception of higher education in America, philanthropy has been an integral and critical component of college operations and educational opportunity. In their analysis of philanthropy in the early American college, John Thelin and Richard Trollinger (2014) describe that revenue generation – through both tuition and philanthropy – was critical to the success of such institutions from their earliest origins. While these educational institutions were largely comprised of professors in the period from the late 17th century to the early 19th century, the composition of their administrative functions is indicative of the importance that philanthropy has played throughout the history of American higher education. Thelin and Trollinger explain, “The prototypical college of the mid-nineteenth century had a lean administrative structure—often confined to a president and to a hybrid officer called ‘the college agent’ whose dual role was to travel the countryside in search of donors and/or prospective students who could afford to pay tuition” (Thelin & Trollinger, 2014, p. 16).

Although governmental support of higher education institutions and students has changed the funding structures for the higher education industry, Thelin and Trollinger argue that philanthropy has remained a key revenue source as colleges have long sought to provide more prestigious educational facilities, instructors, and programs for prospective students. Indeed, given the competitive nature of the higher education industry, the authors argue that it is essential for higher education institutions to seek to maximize all key revenue sources – including philanthropy. They state, “By 2000 the funding model for higher education at colleges and

universities in the United States worked best when these multiple funding streams—tuition dollars, private donations, foundation gifts, state subsidies, and federal research grant dollars—were opened to full throttle” (Thelin & Trollinger, 2014, p. 32).

Thus, as it remains today, from its onset, the social relationships and exchanges between donors and colleges have long shaped the missions and physical landscapes of American colleges and universities. Today, as the need to provide non-tuition revenue continues to increase, so too does the demand for philanthropic support – and this pursuit of philanthropy has become essential to the realization of each institution’s mission. In fact, while most institutions of higher education pursue missions focused on the advancement of learning, research, and betterment of the communities in which they reside (Morphew & Hartley, 2006), to realize this mission, most college presidents spend their time focused on budgetary issues and fundraising. A 2017 American Council on Education survey found that 65% of all college presidents said that budget and financial management occupied most of their time, while the next most time-consuming duty of college presidents involved fundraising (American Council on Education, 2017).

Today philanthropy is a significant and growing factor in the success of institutions of higher education in the United States. According to the annual Voluntary Support of Education (VSE) survey conducted and reported by the Council for Advancement and Support of Education (CASE), during the 2019-2020 academic year, American colleges and universities raised \$49.60 billion in philanthropic support. This level of support represented the largest amount of philanthropy ever collectively raised in a single academic year by higher education institutions (Kaplan, 2020).

However, while total philanthropic dollars contributed to higher education has reached its highest levels, data from the National Center for Education Statistics (NCES) demonstrates that, as a proportion of total higher education revenue, philanthropy has remained largely flat over the last two decades. During the 1999-2000 academic year, philanthropy represented 13.67% of all higher education revenue in the United States. By the 2018-2019 school year, the proportion of U.S. higher education revenue comprised of philanthropy was nearly the same, at 13.85% (National Center for Education Statistics, 2021). In fact, when adjusted for constant 2019-2020 dollars based on the Consumer Price Index, and calculated as a source of revenue per full-time equivalent student (FTE), the NCES report finds that the value of philanthropic contributions to U.S. institutions of higher education has fallen from \$9,868 per FTE in 1999-2000 to \$9,700 per FTE in 2018-2019 (National Center for Education Statistics, 2021). This suggests that the value of philanthropic contributions to higher education has increased as a proportion of revenue, but has not kept pace with inflation or increases in higher education enrollment.

Indeed, comprehensive longitudinal research from the Indiana University Lilly Family School of Philanthropy suggests that overall rates of philanthropic giving, and giving to educational institutions specifically, have experienced a statistically significant decline during the first two decades of the 21st century. The Lilly Family School of Philanthropy, which was originally known as the Center on Philanthropy, has conducted the Philanthropy Panel Study (PPS) since 2001 (Indiana University Lilly Family School of Philanthropy, 2019). In collaboration with the Panel Study of Income Dynamics conducted by the University of Michigan, the PPS is a longitudinal study that tracks household philanthropic behavior through surveys administered every two years (with each year's data collection representing the behavior of respondents in the previous calendar year). The PPS survey asks respondents if they have

made a philanthropic contribution of \$25 or more in the previous calendar year. Those who have done so are then asked a series of follow-up questions regarding their philanthropic behavior. Based upon survey data collected in 2001 (sample size 7,063) and 2017 (sample size 9,049), in 2019, the Lilly Family School published a comprehensive assessments of U.S. philanthropic behavior and its changes over time (Indiana University Lilly Family School of Philanthropy, 2019).

The PPS (Indiana University Lilly Family School of Philanthropy, 2019) found that overall rates of charitable giving had fallen from 66.22% of U.S. households in 2000 to 53.09% in 2016, a variance which was statistically significant at the $p < .05$ level. The decline in giving rate was also statistically significant for every age group in the study: 30 and under, 31-40, 41-50, 51-60, and 61 and over. Moreover, and more pertinent to the given study, the PPS respondents provided information regarding the type of organizations they supported with their giving, with options including art, basic needs, education, environment, health, international, neighborhood, youth, and combined causes. The survey found that giving rates to educational causes, which included K-12 and higher education related organizations, experienced a statistically significant overall decline from 14.5% of households making such a gift in 2000 to 11.93% of households supporting education in 2016. The declines were statistically significant for the 30 and under, 31-40, and 51-60 age cohorts, while variances were not statistically significant for the 41-50 and 61 and over cohorts.

In response to the decline in philanthropic giving rates to higher education, higher education leaders have continued to search for enhanced strategies to induce giving, with many focusing on increased alumni engagement to create additional institutional value (Dean, 2007). Indeed, recent data from The Council for Advancement and Support of Education (CASE),

which is an international professional association for those working within the alumni relations, communications, development, marketing, and advancement services roles of education institutions (Council for Advancement and Support of Education, n.d.), suggests that alumni engagement through volunteering and event attendance may be correlated with philanthropic giving. From September of 2020 through January of 2021, CASE conducted a survey of member institutions (Smith & Kaplan, 2021) to better understand how and to what degree the institutions' alumni were engaged in the previous fiscal year through philanthropy, volunteering, experiential event attendance, and active receipt of communication (opening emails, affirming or responding to social media posts, etc.). 372 K-12 and higher education institutions worldwide completed the survey, with 248 (67%) being U.S. institutions of higher education.

The CASE Alumni Engagement Survey (Smith & Kaplan, 2021) found that, among alumni of higher education institutions with undergraduate and graduate student populations (n=266), approximately 3.2% had engaged philanthropically and 0.6% had volunteered within the past year. (The institution that served as the case for the present study also would fall into the category of serving both undergraduate and graduate students). The survey defined volunteer engagement as formal volunteer roles that include, but are not limited to, “serving on a governing or advisory board, recruiting students, serving as career mentors, public advocacy, and volunteer speaking engagements” (Smith & Kaplan, 2021, p. 5). In addition, responding institutions reported that 3.1% of their alumni had participated in an experiential event, and 6.3% had actively engaged with university communication.

Interestingly, while the overall rates of philanthropic giving among alumni of institutions educating both undergraduate and graduate students was only 3.2%, the CASE Alumni Engagement Survey (Smith & Kaplan, 2021) found that the rates of philanthropic giving were

significantly higher among those alumni who were also engaged through volunteerism, events, or communications. Once again, among institutions with undergraduate and graduate students, the rate of philanthropic giving for alumni who also volunteered was 26.3%, while the rate of giving for those who engaged through experiential events was 22.7%. The rate of giving for those who engaged through communication was 11.5%. These findings suggest that there may be a correlation between philanthropic giving and non-monetary engagement. However, the findings do not clarify if the volunteering and event engagements leads to more giving, or if, perhaps, those who give are more likely to volunteer and attend events. Moreover, it is important to note that the volunteer variable in the survey includes members of formal boards, whom often have required giving thresholds for involvement (BoardSource, 2017).

Given the need to maximize philanthropy, many philanthropic practioners and higher education researchers have explored the factors that influence giving. Much of this research has identified factors inherent to the individual prospective donor, but beyond the immediate influence of any development officer-induced effort. For example, research suggests that an individual's propensity to give may be influenced by his or her income, age, education level, or the distance he or she lives from the college campus (Lara & Johnson, 2014; McAlexander, Koenig, & DuFault, 2016; Van Slyke & Brooks, 2005). While recognition of these factors is important as fundraising professionals consider potential philanthropic prospects, it is difficult for the practitioner to directly influence these factors to increase the propensity for giving.

Furthermore, additional literature in the field suggests that the current emotional and social connection that a prospective donor feels for a university is a significant predictor of his or her giving (Sun, Hoffman, & Grady, 2007). Studies have found that individuals are more likely to support their alma mater if they feel they know and trust its leaders (Degasperi & Mainardes,

2017), if they advocate for the university with their peers (Heckman & Guskey, 1998), and if they personally identify with the university's brand (Stephenson & Bell, 2014).

Purpose of the Study

As the need to provide more and better services to students rises and the need to moderate student expenses intensifies, philanthropic giving continues to be a critical revenue source for higher education. Prior literature in the field regarding alumni engagement and giving has suggested that, through strategic alumni engagement, higher education professionals can enhance the sense of connection that prospective donors feel to the institution, and thereby increase donations (Heckman & Guskey, 1998; Stephenson & Bell, 2014; Sun, Hoffman, & Grady, 2007). Accordingly, to increase prospective donors' emotional connection and personal identification with the university, many development officers pursue strategies designed to increase alumni involvement (Dean, 2007).

However, as these higher education leaders consider potential alumni engagement strategies that may increase alumni philanthropic giving, empirical research regarding the association between alumni engagement and alumni giving is critical. While some prior studies have found a positive correlation between alumni event attendance and giving (Lara & Johnson, 2014; Weerts & Ronca, 2007; 2008), others have questioned whether alumni involvement alone results in greater levels of giving (Caboni & Eiseman, 2005). Similarly, when it comes to volunteering and its influence on giving, some research has found that volunteering is positively correlated with giving money (Brown & Lankford, 1992; Cappellari, Ghinetti, & Turati, 2011), while other studies have found that giving time and money are negatively correlated based on the opportunity cost of giving time and the affordability of giving money (Bauer, Bredtmann, & Schmidt, 2013; Duncan, 1999).

Given the importance of philanthropy to U.S. higher education, the common use of alumni engagement strategies to increase giving, and the divergence within the extant literature regarding the correlation between alumni giving and volunteering, it is important for the higher education industry to better understand how a donor's contribution of time influences his or her contribution of money. To address that question and contribute new knowledge to the field, the current study assessed the effect that volunteering for a higher education institution has on giving to that institution.

Research Questions and Hypotheses

To contribute to the knowledge in the field regarding the impact of alumni volunteering on giving, the study analyzed the giving behavior of first-time mentors in an alumni mentorship program at a private liberal arts institution located in a mid-sized metropolitan area in the East South-Central region of the United States. The research assessed how participation in the semester-long, multi-interaction alumni mentorship program influenced giving rates by comparing the annual giving of participants in the year prior to their first year as a mentor, in their first year as a mentor, and in the year immediately following their first mentor year.

The research questions for the study were threefold:

1. What is the effect of participation in a semester-long, in-person alumni-student mentor program on mentor philanthropic giving to the university?
2. Does having made a gift in the year prior to the first year of participation in the alumni-student mentor program affect the degree to which participation in the program influences giving?

3. Does participation in the alumni-student mentor program for a second consecutive year following the first year as a mentor affect the degree to which participation in the program influences giving?

Given the diverging findings in the existing literature, the importance of alumni satisfaction in giving also found in the existent literature (Hung, 2020), and the degree to which the theoretical frameworks of Donor Organization Integration (Chung-Hoon, Hite, & Hite, 2005; 2007) and Social Exchange (Blau, 1964; Homans, 1958) could justify either increased or decreased giving among volunteers, the hypotheses for the research were as follows:

1. Participation in the alumni mentor program will have a statistically significant but small effect on giving among first-time participants. The investment of time in the first year of volunteer participation will induce a greater organizational attachment, but the influence of that attachment on giving will be mitigated by an increase in organizational investment in the form of volunteer time. However, the greater organizational attachment resulting from the volunteer experience will persist into the year following the first year of volunteer participation, while the investment of time in the form of volunteering will either cease – in the case of those who do not participate again – or normalize – in the case of those who do subsequently participate. Therefore, the variance in giving will be greater from year 2 to year 3 as compared to the variance present from year 1 to year 2.
2. Those who have given in previous years will exhibit a greater effect on their giving than those who have not given, as those who have not given in the prior year will have considerably lower levels of giving overall and thus reduced variance between giving levels. The influence of either the substitute or complement effect of volunteering on

giving will be more pronounced among those who are already giving prior to the advent of the volunteer experience.

3. Those who participate in the program a second consecutive year will exhibit greater effect on giving than those who do not, as voluntarily choosing to participate again demonstrates a positive satisfaction with the volunteer experience and the organization, and prior research has suggested that the correlation between volunteering and giving is associated with participant satisfaction (Hung, 2020).

Context

Data for the study were collected from a private liberal arts institution located in a mid-sized metropolitan area in the East South-Central region of the United States. The data included philanthropic giving for alumni participants in an alumni-student career mentoring program between the 2012-2013 and 2017-2018 academic years. As such, all data reflected alumni giving behavior prior to the onset of the Covid-19 pandemic, which substantially altered the function of higher education.

Alumni participants may have been of any academic or demographic background, and may have been graduates of the institution's undergraduate or graduate degree programs. In the Fall of 2017, the final academic year from which data was collected, the institution had 23,905 living alumni, 2,544 undergraduate students, and 1,213 graduate students.

The institution's Alumni Relations Office and Career Development Center annually organize a student-alumni career mentoring program. The semester-long program matches students with alumni who work in the career industry to which the student aspires. The alumni-student mentor program takes place in the spring semester. During that spring semester, the alumni-student pairs participate in two to three in-person events together, where they discuss a

range of career plans and opportunities. In addition, some alumni-student pairs choose to have additional meetings beyond the formal mentor program. As such, participation in the mentor program represents a significant voluntary contribution of time on the part of the alumni participants. Moreover, the time investment is directly related to advancing the well-being of the student and the mission of the university, and does not present an immediate or obvious tangible benefit to the alumni.

Methods

The study employed a repeated measure mixed design ANOVA statistical method to determine what effect participation in a university's alumni mentor program has on giving, as well as the influence of the participant's prior giving status and subsequent volunteer behavior.

The objective of the study was to determine the effect that volunteering for a higher education institution has on giving. Extant literature has diverged regarding whether volunteering is a complement or substitute for giving. Therefore, if volunteering for a higher education institution influences giving, the study sought to determine if such experience is a complement to giving, and thus serves as a motivation for greater giving, or a substitute for giving, and therefore results in reduced giving.

To help ensure uniformity of participant experience, in cases where an individual participated in the program multiple time between 2012-2013 to 2017-2018, the study considered only the first year of participation. For each unique first-time alumni participant in the alumni mentorship program, the study used a repeated measure ANOVA method to determine if a statistically significant variance occurred across three chronological measures of philanthropic giving – total giving to the institution in the year prior to the first year of participation, total

giving in the year of first-time participation, and total giving in the year immediately following the first year of participation.

The University's alumni-student mentorship program occurred in the Spring semester of each academic year, or approximately January to April. Therefore, the annual giving data were collected based upon calendar years to ensure annual giving reflected periods that were immediately prior to participation, inclusive of and immediately following participation, and appreciably beyond the first year of participation.

In addition to analyzing variance in annual giving over three measures across three consecutive years, the study also considered the influence of two binary categorical variables related to whether participants made a financial gift in the year immediately prior to their first year of participation, and if they participated in the volunteer program again in the year immediately following their first year of participation.

Conceptual Framework

The study was informed by two foundational theories of social interaction and organizational engagement that are highly relevant to fundraising. According to higher education fundraising scholar Noah Drezner (2009), perceptions among fundraising professionals regarding the influence of alumni engagement on alumni giving are grounded in organizational identification and social exchange theories. Drezner argued that most fundraising professionals adopt the notion that they can increase giving by inducing alumni to identify with the institution more strongly personally – Organizational Identification Theory – and by inducing a reciprocal impulse for giving by offering prospective donors opportunities and influence – Social Exchange Theory.

As it relates to organizational identification, Chung-Hoon, Hite, and Hite (2005; 2007) developed the Donor/Organizational Integration model, in which they theorized that donor engagement with an organization influences giving because it strengthens a donor's identification with the organization in two ways. First, through a relational construct, involvement enhances the personal relationship of the donor with the people of the organization, which increases the sense of personal satisfaction the donor feels when giving to the organization. Secondly, through formal structural interaction, the donor feels a sense of responsibility for or influence over the structures and processes of the organization, and this greater influence over the policies and operations of the organization enhances giving likelihood.

The Donor Organization Integration model is, to some extent, an organizational form of earlier sociological theories of social exchange. In their theories of Social Exchange, Homans (1958) and Blau (1964) argued that human behavior is heavily influenced by an exchange of goods, and that social networks are bound together through a sense of reciprocity associated with that exchange. Homans argued that an individual's perception of the likelihood of a returned gift influences the individual's frequency and scale of giving. Importantly, for Homans and Blau, the social exchange involves an inherent, although not necessarily fully conscious, decision process in which people assess the potential value to be gained from offering a resource to a potential recipient, and that assessment of future return is fundamental to their decision regarding what gift they first offer.

Through the lens of Donor Organization Integration theory, volunteering should induce greater levels of giving because it will strengthen the personal relationship of the donor with the institution and provide the donor a sense of responsibility for the outcomes of the organization. However, according to Social Exchange Theory, the process of volunteering may or may not

induce giving based upon whether the volunteer views the experience as a benefit given or a benefit received. If individuals perceive the substantial volunteering of time as an investment in the organization, then they may be less likely to also provide a financial investment until such time when they feel they have received the socially expected return benefit from the organization.

Significance

The study is significant to both the professional practice of higher education fundraising and the academic study of philanthropic behavior, as it provides a quantitative analysis of how the giving behavior of alumni changes over a period in which they complete a significant volunteer experience. Thus, the study informs current fundraising practice regarding the efficacy of employing volunteer programs as a driver of philanthropy. In addition, the study contributes to existing literature regarding whether giving and volunteering are complementary or substitutionary behaviors.

Assumptions and Limitations

A primary assumption of this research is that higher education leaders are interested in securing additional philanthropic resources from alumni, and that the strategies and behaviors of these leaders has the potential to influence the philanthropic behavior of alumni. Survey data from higher education leaders suggests that inducing alumni philanthropy is a primary interest of higher education administrators (American Council on Education, 2017), and prior research suggests that the behavior of fundraising professionals can influence giving behavior (Bryant, Jeon-Slaughter, Kang, & Tax, 2003; Root, Taylor, Rose, & Lauderdale, 2017).

The primary limitation of the study is that the data is derived from a single institution of higher education. The context of the university and its relationship with alumni donors is not universally applicable to all institutions of higher education.

An additional potential limitation is that the participant sample was only sub-considered based upon factors associated with prior financial giving and subsequent volunteer decision. Prior research has suggested a correlation between giving and certain demographic characteristics such as income, age, education level, or the distance living from the college campus (Lara & Johnson, 2014; McAlexander, Koenig, & DuFault, 2016; Van Slyke & Brooks, 2005). However, such questions were not the focus of this research. Indeed, the contextual revelations that a consideration of these demographic factors as determinants of giving might provide, may also be more directly studied by calculating the participant's prior giving behavior to the organization, as is done in the present study. Moreover, it would be unethical, and in many cases impossible, for higher education leaders to discriminate their recruitment of volunteers based upon the volunteer's demographic characteristics. Thus, information specific to giving variations that may or may not be present between certain demographic groups, would be of limited use to higher education leaders. Of greater interest to the present study is how prior giving inclination and satisfaction with the volunteer experience, as a function of repeated volunteer participation, influences the effect of volunteering on giving.

Key Terms

Alma mater – The educational institution from which one completed an academic degree or, in some cases, the institution at which an individual completed the majority of academic course work.

Alumni – Those who have completed an academic degree from a given educational institution or, in some cases, those who have completed a substantial number of academic credits at an institution.

Alumni Engagement – The process by which staff of an educational institution cultivate interactions and relationships with those who have completed an academic degree or substantial academic coursework at the institution.

Alumni Relations Officer – A professional staff member within an educational institution who works to cultivate interactions and relationships with those who have completed an academic degree or substantial academic coursework at the institution.

Development Officer – A professional staff member within an organization who works to secure philanthropy for an organization, usually through cultivating relationships with prospective donors and soliciting them for philanthropy.

Donor Affinity – The degree of emotional connection and comfort that a prospective donor feels for a potential philanthropic recipient organization.

Donor Capacity – The financial capacity that a prospective donor possesses as it relates to the individual's ability to make a philanthropic gift.

Donor Propensity – A prospective donor's likelihood of making a philanthropic gift to a given organization.

Higher Education Institutions – Colleges, universities, and other schools that provide accredited educational programs and associated credentials at the post-secondary level.

Mentor – An individual who provides guidance, advice, and advocacy to another, usually thanks to a relatively greater possession of experience and expertise.

Philanthropy – The concept or act of voluntarily giving one's financial resources to another person or organization to support that individual or organization. May refer to actions by individuals or organizations, such as corporations and foundations.

Prospective Donor – Individuals and organizations that are thought to have a potential and likelihood to provide a monetary gift.

Chapter 2

Literature Review

Overview

Philanthropy is a significant and growing factor in the success of institutions of higher education in the United States. According to the annual Voluntary Support of Education (VSE) survey conducted and reported by the Council for Advancement and Support of Education (CASE), during the 2019-2020 academic year, American colleges and universities raised \$49.60 billion in philanthropic support. This level of support represented the largest amount of philanthropy ever collectively raised in a single academic year by higher education institutions (Kaplan, 2020). Indeed, in their exploration of the history and influence of philanthropy in American Higher Education, Thelin and Trollinger (2014) argued that as universities have faced pressures to grow, serve students, and mitigate tuition, particularly since the early 2000s, the need to maximize philanthropic revenue has become paramount.

Given the need to maximize philanthropy, many philanthropic practitioners and higher education researchers have explored the factors that influence the propensity of a donor to give to higher education institutions. Much of this research has identified donor capacity-related factors inherent to the individual prospective donor, but beyond the immediate influence of any development officer-induced program. For example, research suggests that an individual's propensity to give may be influenced by income, age, education level, or the distance the individual lives from the college campus (Lara & Johnson, 2014; McAlexander, Koenig, & DuFault, 2016; Van Slyke & Brooks, 2005). While recognition of these factors is important as fundraising professionals consider potential philanthropic prospects, it is difficult for the practitioner to directly influence these factors to increase the propensity for giving.

However, additional literature in the field suggests that the prospective donor's affinity for the organization, or the current emotional and social connection that a prospective donor feels for a university, is a significant predictor of his or her giving (Sun, Hoffman, & Grady, 2007). Studies have found that individuals are more likely to support their alma mater if they feel they know and trust its leaders (Degasperi & Mainardes, 2017), if they advocate for the university with their peers (Heckman & Guskey, 1998), and if they personally identify with the university's brand (Stephenson & Bell, 2014).

Therefore, to increase prospective donors' affinity with the university, many development officers pursue strategies designed to increase alumni involvement. Dean (2007) conducted a survey of chief development officers at 166 American doctoral research universities regarding their perceptions of what strategies most influence alumni giving. The chief development officers reported that, in their perception, alumni involvement factors, such as "overall influence of alumni involvement," "visits campus frequently," and "attends alumni events" are among the strongest influences of alumni giving. Indeed, in their studies of alumni engagement and giving, Lara and Johnson (2014) found that involvement in alumni events is positively correlated with giving.

However, other recent research has questioned whether all affinity-building alumni involvement programs result in greater donor propensity to give (Caboni & Eiseman, 2005). Such studies question whether the emotional connection that development officers seek, and which would induce alumni to give, is inherent to all alumni programming.

This review of the current research related to philanthropic giving to American institutions of higher education will first highlight two foundational theories of social interaction and organizational engagement that serve as the framework for the present study. Subsequently,

the review will summarize key prior research regarding determinants of philanthropic monetary support, determinants of non-monetary voluntary support, the relationship between giving time and giving money, and the influence of career-related programming on alumni giving.

Theoretical Framework

According to higher education fundraising scholar Noah Drezner (2009), perceptions among fundraising professionals regarding the influence of alumni engagement on alumni giving are grounded in organizational identification and social exchange theories of philanthropy. Drezner argued that most fundraising professionals adopt the notion that they can increase giving by inducing alumni to identify with the institution more strongly personally – organizational identification theory – and by inducing a reciprocal impulse for giving by offering prospective donors opportunities and influence – social exchange theory.

Mael and Ashford (1992) published foundational research regarding the role of organizational identification on philanthropy. Their model of alumni behavior suggested that alumni propensity to participate in gift campaigns is correlated with the degree to which the alumni feel their association with the university is a key part of their personal identity. Building upon the work of Mael and Ashford, Chung-Hoon, Hite, and Hite (2005; 2007) developed the Donor/Organizational Integration model, in which they theorized that donor engagement with an organization influences giving because it induces a donor's identification with the organization in two important ways. First, through a relational construct, involvement enhances the personal relationship of the donor with the people of the organization, which increases the sense of personal satisfaction the donor feels when giving to the organization. Secondly, through formal structural interaction, the donor feels a sense of responsibility for or influence over the structures

and processes of the organization, and this greater influence over the policies and operations of the organization enhances giving likelihood.

Interestingly, while donor cultivation strategies related to alumni involvement may affirm the Donor/Organizational Integration theory of philanthropy, they do not always embody the foundational tenants of social exchange theory. In his Social Exchange Theory, Homans (1958) argued that human behavior is heavily influenced by an exchange of goods and a social force toward reciprocity associated with that exchange of goods. Homans argued that an individual's perception of the likelihood of a returned gift influences the individual's frequency and scale of giving. Importantly, for Homans, the social exchange involves an inherent decision process in which people assess the potential value to be gained from offering a resource to a potential recipient, and that assessment is fundamental to the decision regarding what gift they first give.

As a contemporary to Homans, Blau (1964; 1986) was informed by the work of Homans while also building upon that work to present a more social and less acutely transactional theory of social exchange. Like Homans, Blau argued that the process of social exchange creates a bond between participants that leads to a desire or pressure for reciprocity. However, Blau theorized that within the social relationship, individuals perceive a real expectation for reciprocity without necessarily explicitly recognizing the tangible good or service to be exchanged. Moreover, the benefit exchanged may be social or emotional in nature, such as exchange of time, respect, or influence. Indeed, Blau used as a central exemplar of this theory, the voluntary mentor relationships between junior and senior employees within an organization. The senior employees provided time and advice to the junior while receiving respect, a sense of social importance, and, at times, professional assistance from the junior employee. Though the specific exchange was never specified, Blau theorized that the individuals were, nevertheless,

acutely aware of the pressure or expectation for exchange. Moreover, as the value of the mentor relationship diminished for both the junior and senior employee, the pressure to continue engaging with the same intensity similarly waned.

Finally, in her exploration and summary of fundraising research, Kelly (2002) built upon the work of Homans and Blau to argue that higher education philanthropy is predicated on a reciprocal relationship between donors and their alma mater, in which both entities feel that their personal interest is advanced through the support of the other. The university helps graduates realize their objectives, which provides incentives for alumni to provide return gifts that help the university. However, even in making the return gift, the alumni perceive a potential for still greater personal benefit – a subsequent gift from the university – through social connections, opportunities, influence, or association with a more prestigious university.

Interestingly, donor cultivation strategies may not always employ both Donor/Organizational Integration and Social Exchange Theory simultaneously. Critically, current research suggests fundraising strategies based solely on organization integration or social exchange may not succeed in inducing giving. For example, sending prospective donors magazines or gifts may, at a most basic level, qualify as a gift to a donor and thus, according to Social Exchange Theory, should induce a reciprocal impulse. However, such passive distribution of gifts, particularly when said gifts are of limited emotional significance, may not engender the reciprocal impulse in donors. In her analysis of the factors contributing to alumni philanthropy, Conner (2005) sought to explore this phenomenon by testing a variable she defined as “Alumni Involvement” and another she called “Alumni Loyalty.” Alumni involvement referred to low-emotional significance engagement such as receiving the alumni magazine or attending an event, while “Alumni Loyalty” referred to more emotionally engaged organizational

identification through recommending the college to others, advocating for its role in the community, and feeling pride in its prestige and influence. Conner found that the alumni involvement variable did not correlated with giving, while the alumni loyalty variable did.

Conner's research suggests that simply providing a donor with a gift – social exchange theory – without inducing a sense of personal identification with the university – organization identification theory – does not result in increased giving. Similarly, Caboni and Eiseman (2005) constructed a donor giving model to determine factors, under the influence of a development or alumni relations officer, that may impact giving. The researchers analyzed the giving and alumni behavior of graduates of a liberal arts college and found that alumni involvement alone had a negative effect on giving, while perceived organizational prestige – which provides a benefit to the donor – was positively associated with giving.

Moreover, as the following summary of current research will further reveal, alumni involvement alone may not always lead to giving. While some research has found that volunteering is positively correlated with giving money (Brown & Lankford, 1992; Cappellari, Ghinetti, & Turati, 2011), other studies have found that giving time and money are negatively correlated based on the opportunity cost of giving time and the affordability of giving money (Bauer, Bredtmann, & Schmidt, 2013; Duncan, 1999; Feldman, 2010; Yang, 2016). Taken through the lens of Donor/Organizational Integration and Social Exchange Theory, this research suggests that when graduates donate time, it may increase their organizational identification, which would, in turn, increase their giving. However, a substantial investment of time as a mentor may also create a social dynamic in which alumni feel they have provided a gift to the university in the form of their time and, therefore, no additional financial gift is necessary until such time when the university provides the socially expected reciprocal benefit.

Determinants of Monetary Support

Current literature in the field of philanthropic giving suggests that determinants of monetary support to higher education can be classified into three primary themes. These include factors that are inherent to the individual prospective donor and therefore beyond direct influence from the university; influences related to the past educational experience of the prospective donor and therefore only open to influence from the university if considered in a longitudinal sense; and finally those drivers of giving that are related to the prospective donor's current relationship with the organization, and thus most directly open to influence through university action.

Personal Factors Influencing Giving.

As it relates to determinants of monetary support that are inherent to the prospective donor, research suggests that an individual's propensity to give may be influenced by his or her income, age, education level, or the distance he or she lives from the college campus (Lara & Johnson, 2014; McAlexander, Koenig, & DuFault, 2016; Monks, 2003; Van Slyke & Brooks, 2005).

McAlexander, Koenig, & DuFault (2016) surveyed 4,834 alumni of two large comprehensive universities in the United States. Participants provided information regarding their affinity toward their alma mater, their likelihood of contributing financially, and their interest in participating in university activities. They were also grouped into two age categories: those 30 years old and under, and those 65 years old and older. The study found that the older cohort of alumni was more likely to report an intent to give financially within the next year, to attend an alumni event, and to volunteer. The older cohort also held a more positive view of

their university in terms of its brand and quality of education, while the younger cohort had a more favorable view of alumni peers (differences in mean scores statistically significant).

Similarly, Van Slyke and Brooks (2005) surveyed 2,545 Georgia residents in the Atlanta metropolitan statistical area (MSA). Drawing on data from these surveys, as well as those with fundraising professionals, the authors compared the success rates of various fundraising activities based on the demographic and economic characteristics of the prospective donors. They found that a 10% increase in income was associated with a 9.3% increase in giving. Moreover, the study concluded that age, having earned a bachelor's degree or equivalent, participating in civic and charitable activities, and volunteering for nonprofit organizations were positively correlated with an individual's level of charitable giving. In fact, participating and volunteering were among the strongest predictors of giving. Monks (2003) similarly found that an increase in household income by \$10,000 increased expected contribution by 9%.

Finally, Lara and Johnson (2014) conducted a regression analysis of the giving and personal data of 25,404 alumni of a Colorado college and found that age and distance from campus were positively correlated with giving. Interestingly, in contrast with McAlexander, Koenig, & DuFault (2016), Van Slyke and Brooks (2005), and Monks (2003), Lara and Johnson found that income was slightly negatively correlated with giving.

The Influence of Past College Experience on Giving.

In addition to research suggesting that donor characteristics drive philanthropy, substantial research studies have found a relationship between alumni giving and the prospective donor's past college experience. These determinants include institution-level factors such as studies that found a positive correlation between giving and the alumnus's perception regarding

the university's image within the community (Cunningham & Cochi-Ficano, 2002) or the relative academic aptitude of its student body (Terry & Macy, 2007).

Using data from 415 higher education institutions gleaned from the Council for Aid to Education's Voluntary Support of Education Database and from Paterson's Higher Education Research Division, Cunningham and Cochi-Ficano (2002) examined nine explanatory variables regarding institutional characteristics from 1984 and considered their influence on alumni giving in 1997. The study found that average incoming SAT scores and student-to-faculty ratio at the time of participant matriculation were positively associated with giving, suggesting that alumni perception of their student experience is critical to giving. Variables related to soliciting efforts, collegiate sports, religious affiliation, and gender and race were not statistically significant.

In addition, Terry & Macy (2007) sought to better understand the institutional factors that influence alumni giving by analyzing a dataset derived from the U.S. News & World Report that comprised 196 institutions. The authors conducted a regression analysis with alumni giving rate as the dependent variable and thirteen variables related to institutional characteristics at the time the respondent was an undergraduate as the independent variables. The study found that the percentage of students receiving Pell grants and the institutional acceptance rate were negatively correlated with alumni giving, while the percentage of students who were full-time enrolled was positively correlated.

Additional research suggests that the prospective donor's overall perception of the quality of his or her college education is a strong predictor of giving. Baade and Sundberg (1996) analyzed 125 public and private doctoral-granting research universities and 250 liberal arts colleges to determine the influence of college or university type, student family wealth, and institutional efforts to solicit funds on alumni giving. The study found that variables related to

institutional quality and student wealth were both positively correlated with alumni giving, with institutional quality being most impactful at private universities and liberal arts colleges, while student wealth characteristics most influenced alumni giving at public universities. Institutional efforts to solicit funds, as determined by percentage of alumni solicited, had a strong positive correlation with alumni giving at all three institution types.

Further research has found a relationship between giving and the recalled educational experience of donors (Koenig-Lewis, Asaad, Palmer, & Petersone, 2016), with relationships formed through outside of classroom experiences, such as internships (Monks, 2003) or having been mentored (Clotfelter, 2001; 2003), being particularly impactful toward future giving.

Koenig-Lewis, Asaad, Palmer, and Petersone (2016) surveyed 805 alumni of a large, middle-ranking United Kingdom university regarding alumni loyalty as well as their recollection of both academic and social experiences while a student. The study found both recalled academic and recalled social experiences have a statistically significant influence on alumni loyalty. However, the effect of recalled academic experiences was higher than that of recalled social experiences. The authors concluded that academic experiences have a greater long-term influence on alumni giving than social experiences.

Among those impactful academic experiences, Monks (2003) argued that undergraduate internships influence later-in-life alumni giving. He conducted a regression analysis of factors contributing to alumni giving by considering data from a Spring 2000 survey of 10,515 alumni of 28 private universities who had graduated in 1989. The study found that the most significant predictor of an individual's giving to his or her alma mater was the level of satisfaction with his or her undergraduate experience, where those who reported being "very satisfied" gave 2.6 times more than those who reported being "ambivalent." However, the study also found that graduates

who indicated that they had completed an internship or worked with faculty outside of class were more likely to give than those who did not.

Similarly, in two separate studies, Clotfelter (2001; 2003) found that those who had a mentor as an undergraduate were more likely to give as alumni. First, using data from the College and Beyond survey, which collected information from graduates of 30 private colleges in 1951 and 1976, Clotfelter (2001) conducted interviews with respondents from a subset of 14 of the 30 colleges regarding their college experience and current life. He also collected individual giving information for each survey participant from that individual's alma mater and then compared the giving rates among the 1951 and 1976 cohorts. The author found that in both cohorts, alumni were more likely to be in the top 1 percent of donors if they had a mentor or participated in extracurricular activities or athletics. In addition, the author found that half of the dollars given by the 1951 cohort were donated by 1 percent of its members, while for the 1976 cohort the top 1 percent gave 65 percent of all philanthropic giving.

Once again drawing upon the College and Beyond survey, Clotfelter (2003) collected information on students entering 34 private colleges and universities in 1951, 1976, and 1989. He interviewed each participant regarding their experience and satisfaction with the institution, and then collected giving information from their alma mater. The author found that being very satisfied with the institution had significant and positive correlation with giving. Moreover, he found that attending a college that was the person's first choice and having had a college mentor were strongly correlated with institutional satisfaction.

This research suggests that institutions may be able to improve the long-term rate of giving among alumni by focusing on producing a high-quality educational experience. However, because the peak period for alumni donations may be 30 to 40 years after an individual graduates

from college (Lara & Johnson, 2014), the factors influencing the undergraduate experience of prospective donors are likely beyond the scope of influence for current higher education leaders.

Current Institutional Connection and Giving.

However, extensive literature in the field suggests that the current emotional and social connection that a prospective donor feels for a university is a significant predictor of his or her giving (Sun, Hoffman, & Grady, 2007). This third theme of research regarding the determinants of monetary support includes studies that found individuals are more likely to support the university if they feel they know and trust its leaders (Degasperi & Mainardes, 2017), if they advocate for the university with their peers (Heckman & Guskey, 1998), and if they personally identify with the university's brand (Stephenson & Bell, 2014).

Using a questionnaire containing 49 statements based on external motivating variables of philanthropy, Degasperi and Mainardes (2017) conducted a survey of 1,073 Brazilians to determine which variables had the greatest impact on survey participants. The study found eight external factors motivate philanthropic activity. These include, trust, reward, leadership, organizational characteristics, environmental influences, personal benefits, characteristics of beneficiaries, and future interests.

Heckman and Guskey (1998) surveyed 1,010 alumni of a midwestern American university using a questionnaire of their creation that assessed alumni overall satisfaction with their alma mater, perception of the alma mater's educational performance, the personal relationships with the alma mater, and the individual characteristics of the alumnus, such as age, geography, gender, and discipline. The study found that the factors that lead to alumni willingness to support their alma mater include social activities, satisfaction with educational performance, and having advocated for the university among peers.

Stephenson and Bell (2014) similarly found that alumni awareness and perception influence giving. The authors sought to determine the influence of university brand identification on the frequency of philanthropic donations by considering survey and giving data from 2,763 graduates of a public university in the mid-Atlantic region of the United States. The study found that brand identification had a small effect on frequency of giving. As the level of identification with the university increased by one point, the number of donations increased by 1.05.

In addition, research suggests that interaction with the alumni association is a key determinant, as donors give more if they personally know someone in the alumni association (Newman & Petrosko, 2011), if they receive direct benefit from the alumni association (Iskhakova, Hilbert, & Hoffmann, 2016), and if they have a substantial history of membership in the alumni association (Ki & Oh, 2018).

Newman and Petrosko (2011) examined existing institutional data and survey data of 7,535 alumni from a large, public, doctoral-granting research university in the Southern United States. Slightly more than half (52%) of those surveyed were current members of the alumni association. The study data included demographic information, educational history, alumni giving, views regarding alumni involvement, student experiences, and institutional perception. The study found that graduates who knew others in the alumni association were 2.45 times more likely to be members themselves. In addition, large donors and current donors were three times more likely to be alumni association members. Finally, perception of the university and involvement with the university were positively correlated with alumni association membership.

Iskhakova, Hilbert, and Hoffmann (2016) surveyed 202 final-year undergraduate students studying economics in Germany and Russia. The survey asked respondents to provide their

assessment of their student experiences and their expectations regarding giving and maintaining connection to the university. The study found that an alumnus's predisposition to charitable activity and direct benefits from an alumni association had the strongest statistically significant influence on intention to make a charitable contribution.

Furthermore, Ki and Oh (2018) conducted a quantitative analysis on a secondary data set collected by the American Society of Association Executives regarding the relationship between variables associated with philanthropic donation to an organization, intrinsic motivation for support, extrinsic motivation for support through social interaction, and association membership length. The study found that length of membership with a nonprofit organization and one's own personal satisfaction from supporting the organization were the greatest determinants of giving.

Finally, the quality of personal relationships with individuals at the university is also a key driver of philanthropy, as research suggests that donors give more if they are personally asked to do so by someone they know (Bekkers, 2010; Bryant, Jeon-Slaughter, Kang, & Tax, 2003) and if they are a volunteer (Yeomans & Al-Ubayadli, 2018).

Drawing upon a sample of Dutch participants, Bekkers (2010) utilized a factorial analysis to consolidate a range of variables into those associated with material, social, and psychological incentives for giving, and then analyzed their association with giving. The study found that social incentives for giving strongly increase intentions to give both time and money, with people being more likely to give if the request for support originates from a local source. The study demonstrates that the closer a prospective donor is to a solicitor or soliciting organization, the more likely the prospect is to donate time or money.

Yeomans and Al-Ubayadli (2018) analyzed findings from a field experiment conducted by the Center for Economic Progress, which asked their current volunteers to donate money.

The authors then analyzed the contribution of time and money of each volunteer both before and after the solicitation to determine how the solicitation impacted future giving and volunteering. The authors found that solicitation generated more donations from long-time volunteers than first-time volunteers.

Determinants of Non-Monetary Engagement

Although the literature suggests a multitude of determinants of giving, the most critical factors for fundraising professionals are those that the university can influence in the present. Accordingly, higher education leaders focus on creating a connection with their alumni because, as demonstrated in the research cited in the previous section, if donors are first engaged with the university in non-monetary ways, then their giving may be greater and more frequent. Therefore, in addition to understanding the determinants of alumni monetary support, it is also important to better appreciate the determinants of non-monetary volunteer support.

As with the field of literature regarding determinants of monetary support, the field of research on determinants of non-monetary support can be classified into three themes: factors inherent to the individual prospective donor; influences related to the past educational experience of the prospective donor; and drivers of giving that are related to the prospective donor's current relationship with the organization, and thus most directly open to influence through university action. Research suggests that inherent donor characteristics such as age, residence, and propensity for helping others are positively associated with alumni participation in non-monetary engagement. Utilizing data collected from the Alumni Connections survey conducted by the Wisconsin Center for the Advancement of Postsecondary Education (WISCAPE), Weerts and Ronca (2008) constructed a binomial logistic regression model to classify alumni donors into two groups based upon whether the alumnus supports the university through monetary

contributions only, or by both giving and volunteering. The authors found that gender, residence, and overall civic engagement were significant predictors of alumni volunteering. Women were 1.94 times more likely to volunteer than men, and donors residing in the home state of the institution were 2.19 times more likely to volunteer than those residing outside of the home state. Finally, donors who were volunteers at any organization were more than twice as likely to volunteer for their alma mater.

In addition, research suggests that a second theme regarding factors associated with past collegiate experiences also influences non-monetary support. Studies have found that alumni become engaged if they have fond memories of their experience with college faculty (Frisby, Sidelinger, & Tatum, 2019), and that their engagement is positively correlated with the perceived quality of their education (Snijders, Wijnia, & Rikers, 2019).

Frisby, Sidelinger, and Tatum (2019) surveyed 148 graduates of a medium-sized, northern liberal arts institution and a large, mid-Atlantic university, regarding recalled interactions with faculty, inclinations toward alumni engagement, and support of their alma mater. The authors found that positive recollections of faculty interactions were positively associated with organizational identification and general expectations of social support, but not related to expectations that the graduate would fulfill specific roles for the alma mater.

Snijders, Wijnia, and Rikers (2019) surveyed 152 alumni of a Dutch university and collected responses regarding the respondents' trust and commitment to the university, conflicts as a student, satisfaction with the educational experience, and perception of academic quality. The study found that perception of university quality had the largest effect on alumni loyalty, while issues pertaining to affective commitment, such as emotional connection, had a smaller effect.

As was the case for literature regarding the determinants of monetary support, while research regarding the donor demographic and collegiate experience determinants of non-monetary engagement is valuable for higher education, the most salient research for fundraising professionals relates to those determinants that leaders can influence today. Accordingly, research suggests that trust in the university and sharing its values is important. Schlesinger, Cervera, and Pérez-Cabañero (2017) surveyed 1,000 individuals who had graduated from two Spanish universities within the last three years. The survey collected responses to questions in five categories, including alumni loyalty, graduate satisfaction, trust, university image, and shared values, with each question scored according to an 11-point Likert scale. The study found that graduate satisfaction, trust, and shared values, all influence alumni loyalty. University image influenced alumni loyalty indirectly because of its positive correlation with graduate satisfaction and trust (standardized correlation coefficients of .62 and .45, respectively).

Finally research also suggests that university event attendance has a positive effect on alumni connection. Drawing upon data from a survey of 2,400 alumni, aged 30 to 70, from a large research extensive university, Weerts and Ronca (2007) used a multinomial logistic regression model to highlight characteristics that tend to be present in alumni who fall into one of four categories: Inactive, Volunteer, Donor, or Supporter – which was defined as one who both volunteered and donated. The study suggested that those alumni surveyed who were “supporters” were 9.28 times more likely to give and volunteer based on a single unit increase in agreeing that alumni should support their alma mater and that the university needed their help.

Relationship of Giving Time and Giving Money

As the previous section detailed, literature regarding the determinants of monetary support and non-monetary engagement among college alumni suggests that university leaders

can most readily enhance an alumnus's propensity to give by increasing his or her connection to the university, and the university can most effectively increase the alumnus's connection to the university by getting him or her involved through event attendance and volunteering (Weerts & Ronca, 2007). Moreover, research suggests that alumni may want to become involved as mentors (Clotfelter, 2001; 2003).

Recent studies have suggested a positive correlation between alumni event attendance and giving (Lara & Johnson, 2014; Weerts & Ronca, 2008). However, the literature is inconclusive regarding the relationship between gifts of time and money when the allocation of time may represent a greater personal investment than event attendance, such as when one serves as an organizational volunteer. Some research has found that volunteering is positively correlated with giving money (Brown & Lankford, 1992; Cappellari, Ghinetti, & Turati, 2011), while other studies found that giving time and money are negatively correlated based on the opportunity cost of giving time and the affordability of giving money (Bauer, Bredtmann, & Schmidt, 2013; Duncan, 1999).

Using data from the Florida Consumer Attitude survey, Brown and Lankford (1992) examined giving and volunteer data by gender, income, education, age, household size, and other variables. They then analyzed the giving of money and time jointly, recognizing that one may have influence on the other. The authors found that gifts of money and time were positively correlated. They also found that as the tax price of giving increased, which is to say the net cost of contributing after taxes increased, both monetary giving and volunteering decreased.

Cappellari, Ghinetti, and Turati (2011) developed a behavioral model accounting for giving and volunteering and then tested the model using data from an existing survey of Italian household market behavior. The study found that emotional connection and reputational

concerns are important determinants of charitable giving and volunteering. Moreover, the study found that the giving of time and money were positively correlated, suggesting that impulses to give and volunteer do not compete, but instead complement one another.

In contrast, using survey data from the National Study of Philanthropy, Duncan (1999) considered rates of giving and volunteering, and how they associated with government spending for social causes. The model suggests that charitable contributions of time and money were negatively correlated and that considering the impact of volunteer labor reduces the “crowding out” impact of government spending by 27%.

Furthermore, Bauer, Bredtmann, and Schmidt (2013) drew upon survey data from the European Social Survey in 2002-2003 to analyze the association between an individual’s charitable contribution of time, charitable contribution of money, and household income. The authors found that household income is positively correlated with both the individual's probability of donating time and money. However, the marginal effect of an additional euro of household income on volunteering decreased with income. The results suggest that donations of time may be substituted by donations of money as the opportunity cost of volunteering, as a function of salary, increases.

Much of the existing research on the correlation between gifts of time and money has assessed the influence of changes in tax policy on charitable giving and volunteering. Scholars have questioned how giving and volunteering change when charitable deductions change, thereby changing the net cost of donating. However, here too the literature disagrees, with some studies finding a positive correlation (Yen & Zampelli, 2017) between giving and volunteering, and others finding a negative correlation (Feldman, 2010; Yang, 2016).

Yen and Zampelli (2017) constructed a multivariate model that considered individual contributions of time and money in terms of whether they gave and how much they gave. They then assessed the merits of the model by applying it to data from the 2005 Center on Philanthropy Panel Study and Panel Study on Income Dynamics. The study found that changes in the tax price of charitable contributions resulted in substantial changes in the cash contributions of working households to religious and secular charities. As an example, from the survey data set, the authors' multivariate model suggested that changing the 2005 charitable tax deduction to a 12 percent charitable credit, which would lower the overall tax price of making a charitable contribution, would have increased the charitable contributions by working households by \$13.5 billion or 5.3 percent.

Yeomans and Al-Ubayadli (2018) analyzed findings from a field experiment conducted by the Center for Economic Progress, which asked their current volunteers to donate money. The authors then analyzed the contribution of time and money of each volunteer both before and after the solicitation to determine how the solicitation impacted future giving and volunteering. The authors found that solicitation generated more donations from long-time volunteers than first-time volunteers. In terms of impact on volunteering, the study found a decrease in volunteer hours among those who did not donate money and were new to the organization, while long-term volunteers maintained their contribution of time whether they contributed money. This study suggests that giving time and giving money may be substitutes for those with less strong history or connection to the organization.

Finally, in research regarding the giving behavior of volunteers within professional associations Hung (2020) hypothesized that the degree to which volunteering correlates with giving may be influenced by whether the volunteer experience induces greater levels of

satisfaction in the organization. Drawing upon data from a survey of U.S. professional association members that inquired about volunteering, giving, and organizational satisfaction, Hung then conducted a mediation analysis and found that the effect of volunteering on giving was, indeed, mediated by the respondent's satisfaction. This study suggests that volunteering may not inherently influence giving, but has the potential to do so if the volunteer experience appreciably shifts the volunteer's perception of the organization.

Alumni Career Programming and Giving

Philanthropic theory suggests that donors are inclined to give to their alma mater if they feel their personal identity is strongly associated with the organization – Organization Identification Theory – and if they feel a sense of obligation to support the organization in response to a benefit they received from the university, social exchange theory (Drezner, 2009). However, as previously described, research suggests that alumni involvement and gift giving alone do not always result in greater rates of alumni giving. Organizational Integration Theory and Social Exchange Theory, when considered together, suggest that alumni need to feel as though they have received something significant from the university and that they can give something significant back, which will, in turn, result in both a benefit to the university and an additional future benefit to the alumni. Research regarding the influence of career-related perceptions and alumni programming suggest that this reciprocal form of donor-organization integration and identification may be key to giving.

Career success is one of the primary benefits that many college students seek from their university. In 2018, 85.1% of students surveyed by UCLA's Higher Education Research Institute said that being able to get a better job was a very important factor in their decision to go to college (O'Leary, 2020). Thus, Social Exchange Theory would suggest that if alumni feel

they received positive career outcomes from their college, they will be more inclined to provide a return gift. Indeed, Barnes (2007) studied what factors most strongly associated with alumni satisfaction and found that while involvement variables were not significant predictors of college satisfaction, positive feelings regarding individual salary and career success were strong predictors of college satisfaction.

Building upon this research, other scholars explored the direct link between career-related program involvement and giving. Baker (1996) explored participation in student life-related alumni programming to determine which types of programs most effectively influenced alumni giving. She found that career-development related programming most strongly correlated with giving. Similarly, Binkley (2012), explored the degree to which alumni involvement in cultural programming, social programming, and career-related programming influenced giving. He found that cultural programs had a negative influence on giving, social programming had no influence, and career-programming had a positive effect. In addition, Gaylord & Kelleher (2019) surveyed 425 alumni of a large southeastern university who graduated between 2004 and 2016 regarding their perceptions of their alma mater and their undergraduate experiences. The authors found that degree utility, faculty engagement, and career support were positively correlated with degree satisfaction, and that overall degree satisfaction was positively correlated with likelihood of giving.

Finally, in addition to research that suggests alumni enjoy programming that directly benefits their career, other research suggests alumni also enjoy helping undergraduates find jobs. In her study of the factors influencing giving among alumni of 101 institutions, Johnson (2013) found that identifying jobs for undergraduates was positively associated with giving. Moreover, as it relates to how alumni want to support their university, research suggests that alumni want to

give back to their university by mentoring students (Bernal & Mille, 2014; Root, Taylor, Rose, & Lauderdale, 2017; Weerts, Cabrera, & Sanford, 2010).

Bernal and Mille (2014) conducted a qualitative study in which they convened seven focus groups, each with 35 participants, and then asked participants for their opinions related to how they felt their alma mater might best engage them. The study found that alumni preferred communication from their alma mater to be specific to their academic program, with most alumni preferring to provide program-specific financial support. Finally, alumni suggested that the best way to keep them engaged was through profession-related activities, such as continued education, mentoring, and networking.

Root, Taylor, Rose, and Lauderdale (2017) surveyed 719 alumni of a state university in the southeastern United States regarding their preferences for communication from their alumni association. Participants includes those who had recently graduated and those who graduated five years prior. The findings suggest that alumni preferred to receive communication through U.S. Mail, their university email, another email address, or Facebook, with all receiving a median score of 3 on the 4-point Likert scale. Alumni were most interested in giving back to their alma mater through mentoring, speaking to a class, being on an advisory council, or attending an alumni or athletic event, which all received a median score of three.

Weerts, Cabrera, and Sanford (2010) conducted a survey of 514 alumni to determine which non-monetary forms of alumni support were most common, and then to assess whether these mediums of support can be grouped into broad dimensions. The authors found that alumni were most likely to help recruit students (40.8%), participate in special events (31.4%), or contact a legislator on behalf of the institution (28%). Alumni were less likely to host a university-related foundation event (10.4%), serve on a political action team (14.7%), or mentor

new alumni (18.1%). Finally, the confirmatory factor analysis found that a two-dimensional model of alumni support incorporating political advocacy and volunteerism was a better fit for actual alumni activity than a mon-dimensional model.

It may be that alumni career mentorship programming within higher education is particularly useful for generating gifts because it provides a rare cultivation opportunity that both integrates the donor within the organization and triggers the reciprocal impulse inherent to Social Exchange Theory. While alumni are engaging undergraduates in career mentoring programming, they are clearly reminded of the gift they received from the university in the form of their own career success, and simultaneously they can feel as though they are providing a gift of significance back to the university and its students by helping undergraduates also receive career success.

Moreover, what may make career mentoring programming particularly valuable as an alumni cultivation strategy is that the very act of serving as a mentor may elevate alumni's self-perception of their own career success – thus the alumni are giving back and immediately receiving a subsequent return. Ng, Eby, Sorensen, & Feldman (2005) conducted a meta-analysis of studies that sought to identify the predictors of objective and subjective career outcomes. The authors found that subjective outcomes, such as job satisfaction, were more strongly associated with mentorship-related functions. Furthermore, Ghosh and Reio (2013) conducted a meta-analysis of studies regarding what influence the provision of career, psychosocial and role modeling mentoring support had on subjective career outcomes for mentors. The researchers found that providing career mentoring support was strongly correlated to higher perceived career success for mentors. These research studies suggest that mentorship programs may help participants feel more positive about their career success, even if said programming does not

necessarily objectively influence their career outcome. Therefore, it may be that, in the perception of alumni mentors, the act of mentorship increases the career success – a primary objective of higher education – for both the alumni mentor and the student.

Summary - Significance

As the need to provide more and better services to students rises and the need to moderate student expenses intensifies, philanthropic giving continues to be a critical revenue source for higher education. Therefore, the higher education industry greatly needs sound research regarding the determinants of fundraising and the effectiveness of fundraising strategies.

Prior research in the field has identified determinants of giving that are inherent to the donor but beyond the influence of higher education professionals, such as income, age, education level, or the distance from the college campus (Lara & Johnson, 2014; McAlexander, Koenig, & DuFault, 2016; Van Slyke & Brooks, 2005). Additional research has found that alumni perception of their student experience influences their satisfaction with their alma mater and their giving later in life (Baade & Sundberg, 1996; Clotfelter, 2001; Clotfelter, 2003; Cunningham & Cochi-Ficano, 2002; Gaylord & Kelleher, 2019; Koenig-Lewis, Asaad, Palmer, & Petersone, 2016; Monks, 2003; Terry & Macy, 2007).

However, among the determinants of giving that higher education professionals have the capacity to influence in the present, many fundraising professionals focus on efforts to engage alumni in university events and activities (Dean, 2007). Such efforts align with Organizational Identification Theory (Chung-Hoon, Hite, & Hite, 2005; 2007) and Social Exchange Theory (Blau, 1964; Homans, 1958), as they have the potential to help alumni feel more connected and responsible for the success of the organization while also providing a beneficial experience that may induce alumni to make a return gift. However, research has diverged on the degree to

which alumni event attendance improves alumni giving, with some research suggesting event attendance is positively correlated with giving (Lara & Johnson, 2014; Weerts & Ronca, 2007), while other research has questioned whether alumni involvement alone results in greater levels of giving (Caboni & Eiseman, 2005). Similarly, some research suggests that alumni activities vary in their influence on giving and that those associated with career development may be particularly influential as incentives for giving (Baker, 1996; Binkley, 2012).

Finally, current research diverges regarding the influence of more substantial investments of volunteer time on giving, with some research finding that volunteering is positively correlated with giving money (Brown & Lankford, 1992; Cappellari, Ghinetti, & Turati, 2011), while other studies found that volunteering and donating money are negatively correlated due to the opportunity cost of giving time and the affordability of giving money (Bauer, Bredtmann, & Schmidt, 2013; Duncan, 1999).

Research Questions and Hypotheses

To contribute to the knowledge in the field regarding the impact of alumni volunteering on giving, this study analyzed the giving behavior of first-time mentors in an alumni mentorship program at a mid-sized, private university in the southern United States. The research assessed how participation in the semester-long, multi-interaction alumni mentorship program influenced the giving rates by comparing the annual giving of participants in the year prior to their first year as a mentor, in their first year as a mentor, and in the year immediately following their mentor year.

The research questions for the study were threefold:

1. What is the effect of participation in a semester-long, in-person alumni-student mentor program on mentor philanthropic giving to the university?

2. Does having made a gift in the year prior to participation in the alumni-student mentor program affect the degree to which participation in the program influences giving?
3. Does participation in the alumni-student mentor program for a second consecutive year following the first year as a mentor affect the degree to which participation in the program influences giving?

Given the diverging findings in the existing literature, the importance of alumni satisfaction in giving found throughout the existent literature, and the degree to which the Donor Organization Integration and Social Exchange Theory could justify both increased and decreased giving among volunteers, the pre-study hypotheses were as follows:

1. Participation in the alumni mentor program will have a statistically significant but small effect on giving among first-time participants. The investment of time in the first year of volunteer participation will induce a greater organizational attachment, but the influence of that attachment on giving will be mitigated by an increase in organizational investment in the form of volunteer time. However, the greater organizational attachment resulting from the volunteer experience will persist into the year following the first volunteer participation, while the investment of time in the form of volunteering either ceases – in the case of those who do not participate again – or normalizes – in the case of those who do subsequently participate. Therefore, the variance in giving will be greater from year 2 to year 3 as compared to the variance present from year 1 to year 2.
2. Those who have given in previous years will exhibit a greater effect on their giving than those who have not given, as those who have not given in the prior year will have considerably lower levels of giving overall, lower average gifts in subsequent years, and thus reduced variance between giving levels. The influence of either the substitute or

complement effect of volunteering on giving will be more pronounced among those who are already giving prior to the advent of the volunteer experience.

3. Those who participate in the program a second consecutive year will exhibit greater effect on giving than those who do not, as voluntarily choosing to participate again demonstrates a positive satisfaction with the volunteer experience and the organization, and prior research has suggested that the correlation between volunteering and giving is associated with participant satisfaction (Hung, 2020).

Chapter 3

Methodology

Overview and Context

Undergraduate college students are increasingly looking to their institutions of higher education to help them secure employment. In 2018, 85.1% of students surveyed by UCLA's Higher Education Research Institute said that being able to get a better job was a very important factor in their decision to go to college. This response rate represents a significant increase over the 75.3% of students who said the same thing in 1998, and the 73.1% who made such a statement in 1978 (O'Leary, 2020).

In response to this growing demand for career development, universities have begun incorporating career preparation into their mission. For example, the studied university explicitly includes career development into its mission statement, which calls for it to educate students for rewarding careers. Accordingly, the university employs a team of five staff members to support the career development of students through the operation of the Career Development Center.

Mentoring is one of the central strategies that the studied university's Career Development Center staff employ to help students realize their career objectives. Specifically, in collaboration with the university's Alumni Relations Office, the Career Development Center annually organizes a student-alumni career mentoring program. The semester-long program matches students with alumni who work in the career industry to which the student aspires.

Each year, undergraduate students apply to participate in the program in the fall. The university's alumni relations office then seeks volunteer alumni mentors through communications on its website, in emails, and sometimes in the printed alumni magazine. The

alumni-student mentor program then takes place in the spring semester. During that spring semester, the alumni-student pairs participate in two to three in-person events together over the course of 3-4 months. In those meetings, they discuss a range of topics, including career plans, resumes, interviewing, and job opportunities. Furthermore, some student-alumni pairs choose to have additional meetings beyond those formally structured by the university. As such, participation in the mentor program represents a significant voluntary contribution of time on the part of the alumni participants. Moreover, the time investment is directly related to advancing the well-being of the student and the mission of the university, and does not present an immediate or obvious tangible benefit to the alumni.

Research Questions

Although research has found fundraising professionals commonly believe that greater donor engagement will increase giving (Dean, 2007), and previous studies have found that participation in alumni events may increase giving (Weerts & Ronca, 2007; 2008), other research has not found that alumni involvement alone results in greater levels of giving (Caboni & Eiseman, 2005). Moreover, research beyond higher education related to the interaction of volunteering and giving has shown varying results, with some studies finding that volunteering is positively correlated with giving money (Brown & Lankford, 1992; Cappellari, Ghinetti, & Turati, 2011), while other studies have found that giving time and money are negatively correlated (Bauer, Bredtmann, & Schmidt, 2013). This study sought to contribute to the existing knowledge in the field by assessing the effect that volunteering for a higher education institution has on giving to that institution. The study used, as its case, the alumni participants in a semester-long, in-person alumni-student mentoring program at a private liberal arts institution located in a mid-sized metropolitan area in the East South-Central region of the United States.

The research questions for the study were threefold:

1. What is the effect of participation in a semester-long, in-person alumni-student mentor program on mentor philanthropic giving to the university?
2. Does having made a gift in the year prior to participation in the alumni-student mentor program affect the degree to which participation in the program influences giving?
3. Does participation in the alumni-student mentor program for a second consecutive year following the first year as a mentor affect the degree to which participation in the program influences giving?

Hypotheses

The pre-study hypotheses for this research were based upon the previous studies of the impact of alumni engagement on giving and the interaction of volunteering time and giving money. In both cases, the research has diverged in its findings. Moreover, while the Donor Organization Integration theory would suggest that the greater engagement would lead to greater giving, from the perspective of social exchange theory, donor may perceive the substantive investment of time to be a contribution and therefore not precipitate further investment of money. Given this variance in extant literature and theory, the overall hypothesis was that participation in the mentor program would have limited effect on giving across the sample, with greater variance evident in those who have a history of giving and those who opt to participate again in subsequent years. The specific hypotheses for the study were as follows:

1. Participation in the alumni mentor program will have a statistically significant but small effect on giving among first-time participants. The investment of time in the first year of volunteer participation will induce a greater organizational attachment, but the influence of that attachment on giving will be mitigated by an increase in organizational investment

in the form of volunteer time. However, the greater organizational attachment resulting from the volunteer experience will persist into the year following the first volunteer participation, while the investment of time in the form of volunteering either ceases – in the case of those who do not participate again – or normalizes – in the case of those who do subsequently participate. Therefore, the variance in giving will be greater from year 2 to year 3 as compared to the variance present from year 1 to year 2.

2. Those who have given in previous years will exhibit a greater effect on their giving than those who have not given, as those who have not given in the prior year will have considerably lower levels of giving overall, lower average gifts in subsequent years, and thus reduced variance between giving levels. The influence of either the substitute or complement effect of volunteering on giving will be more pronounced among those who are already giving prior to the advent of the volunteer experience.
3. Those who participate in the program a second consecutive year will exhibit greater effect on giving than those who do not, as voluntarily choosing to participate again demonstrates a positive satisfaction with the volunteer experience and the organization, and prior research has suggested that the correlation between volunteering and giving is associated with participant satisfaction (Hung, 2020).

Participants

The participants for the study included alumni of a private liberal arts institution in the East South-Central region of the United States who took part in a semester-long alumni-student career mentorship program at least once between the 2012-2013 and the 2017-2018 academic years. In collaboration with the university's Career Development Center, the university's Alumni Relations Office annually organizes the student-alumni career mentoring program,

which matches students with alumni who work in the career industry to which the student aspires. Alumni participants may be of any academic and demographic background, and may be graduates of the university's undergraduate or graduate degree programs. In the Fall of 2017, the university had 23,905 living alumni.

Some participants in the University's alumni-student mentorship program served as alumni mentors in multiple years from 2012-2013 to 2017-2018, while others only participated in one year. To account for this variance, when assessing the philanthropic impact of program participation, this study considered each unique participant's first year as an alumni mentor. The study also considered the influence of a participant's prior donor status and whether the participant opted to participate in the alumni mentor program again in the year immediately following their first year of participation.

Thus, for each unique alumni mentor, the study identified the first year the individual served as a mentor, and then conducted a repeated measure mixed design ANOVA statistical analysis on total philanthropic giving to the institution in the calendar year prior to the individual's first year as a mentor; the first year as a mentor; and the year immediately following the first year as a mentor. Thus, time, as a function of these three measurements of annual giving related to the year of volunteer participation, was the within-subject factors for the analysis. Two binary categorical variables related to whether the participants gave in the year immediately prior to the mentorship year and whether they volunteered again in the year immediately following the mentorship year served as the between-subjects factors.

Sampling and Approach

This study considered data regarding the philanthropic giving of first-time alumni participants in an alumni-student mentoring program at a private liberal arts institution located in

a mid-sized metropolitan area in the East South-Central region of the United States, from the 2012-2013 to 2017-2018 academic years. In the fall of 2017, the university had 23,905 living alumni. The number of alumni participants in alumni-student mentor program ranged from a low of 129 in 2012-2013 to a high of 201 in 2015-2016.

Table 1

Alumni Participants in the Alumni-Student Mentoring Program by Year, 2012-2018

Academic Year	Total Alumni Participants	First-Time Alumni Participants
2012-2013	129	129
2013-2014	183	145
2014-2015	198	125
2015-2016	201	128
2016-2017	184	89
2017-2018	169	74

Note. Some individual mentors participated in multiple years. Adapted from Colleague database and iModules database. Two records removed from data set for 2015-2016 due to death during period of analysis.

Each year, the university's Alumni Relations office collaborates with the institution's Career Development Center to recruit participants and manage the program. The Career Development Center recruits undergraduate participants and solicits information from them regarding their desired career field. Subsequently, through email, website, and magazine notices, the Alumni Relations office recruits alumni volunteers to match each student with an alumnus working in that students' chosen career field. Following this general recruitment method, the Alumni Relations staff make more targeted appeals to specific alumni as needed to help secure volunteers with the specific career backgrounds needed to match with student interest. These direct appeals may involve personal phone calls or emails. Thus, the alumni recruitment begins with a convenience approach and moves to a purposeful selection to match the numbers and interests of the undergraduate participants.

Data Collection

The data for this study was originally collected by the development and alumni relations office of the university using Microsoft Excel spreadsheets, the Ellucian Colleague enterprise resource system, and the iModules customer relationship management software (Anthology, 2020; Ellucian, n.d.).

Since the 2012-2013 academic year, the university's alumni association has tracked alumni participation in the alumni-student mentorship program through both internally managed Microsoft Excel spreadsheets and the iModules alumni customer relationship management software. In 2020, iModules merged with other education data management providers to form a new corporate entity named Anthology (Anthology, 2020).

Until 2014-2015, the university tracked all philanthropic support through its CARS CX enterprise resource system, which was a product of the Jenzabar corporation (Jenzabar, n.d.). In 2015, the university adopted Ellucian's Colleague product as its new enterprise resource system. All files from CARS were merged into the new system at that time, and the university has continued tracking all philanthropic giving via the Colleague system. Through the Colleague system, the university's Development and Alumni Relations staff members track individual financial gifts as well as cumulative giving totals on an annual basis.

This study collected data from these secondary data sources. The use of secondary analysis of existing data sets in educational research is supported in the literature, as it provides opportunities to glean new knowledge from existing data, and to do so in a manner that is not always easily accessible or possible with other research methods. In her article for *Education Researcher*, Burstein argued that "Secondary analysis can contribute to knowledge because it has the potential to consider important questions without some of the limitations, or with a different

set of limitations, than those encountered in original investigation (Burstein, 1978, p. 10).”

Indeed, because this study will investigate the giving behavior of those who voluntarily chose to contribute their time to an alumni-student mentor program, the use of secondary data is beneficial, as it allows the researcher to assess the voluntary behavior of participants over time without the influence or interference of an associated research project.

By cross referencing participation data from the university’s Alumni Relations Office’s iModuels software and internal documents with giving data from the Development and Alumni Relations Division’s Colleague system, it was possible to compare the annual giving rates of participants in the alumni-student mentor program over time.

Importantly, the Colleague database assigns an anonymous numerical ID number to each constituent. Thus, for this study, the data regarding participation in the alumni mentorship program was first reduced to remove names and only use anonymous identification numbers. Subsequently, utilizing the Colleague database’s reporting and analytics function, the study collected data that identified each anonymous identification number and then provided the total annual giving for each constituent in each of the years from 2011-2012 to 2018-2019. Therefore, in researching the giving behavior of participants, the researcher did not have direct knowledge of the identity of the participants.

As an employee of the university used for the research project, the researcher has access to data contained in the Colleague database, but did not have access to the iModules database or the internal Microsoft Excel files of alumni relations staff. The alumni relations staff do not report to the researcher, and the researcher has no administrative responsibility or professional authority related to the alumni relations staff. To avoid researcher bias, the alumni relations staff provided the researcher with the data regarding alumni participation in the alumni mentor

program, and the researcher conducted the analysis of annual philanthropic giving using Colleague's report analytics tool and anonymous constituent data.

Analysis Design

The study employed a repeated measure mixed design ANOVA statistical method to determine what effect participation in an alumni-student mentor program has on the alumni participant's philanthropic giving, as well as the influence of the participant's prior giving status and subsequent volunteer behavior.

The objective of the study was to determine the effect that volunteering for a higher education institution has on giving. Extant literature has diverged regarding whether volunteering is a complement or substitute for giving. Therefore, if volunteering for a higher education institution influences giving, the study sought to determine if such experience was a complement to giving, and thus served as a motivation for greater giving, or a substitute for giving, and therefore resulted in reduced giving. The semester-long, in-person alumni-student mentoring program at a private liberal arts institution located in a mid-sized metropolitan area in the East South-Central region of the United States served as the case. The participants were all first-time alumni participants in the program between the 2012-2013 and 2017-2018 academic years. To help ensure uniformity of participant experience, in cases where an individual participated in the program multiple time between 2012-2013 to 2017-2018, the study considered only the first year of participation.

For each unique first-time alumni participant in the alumni mentorship program, the study used a repeated measure ANOVA method to determine if a statistically significant variance occurred across three chronological measures of philanthropic giving – total giving to the institution in the year prior to the first year of participation, total giving in the year of first-

time participation, and total giving in the year immediately following the first year of participation. The university's alumni-student mentorship program occurred in the Spring semester of each academic year, or approximately January to April. Therefore, the annual giving data was collected based upon calendar years to ensure annual giving reflects periods that are immediately prior to participation, inclusive of and immediately following participation, or appreciably beyond participation.

In addition to analyzing variance in annual giving over three measures across three consecutive years, the study also considered the influence of two binary categorical variables related to whether participants made a financial gift in the year immediately prior to their first year of participation, and if they participated in the volunteer program again in the year immediately following their first year of participation. These two additional layers of consideration are important given the extant research and nature of the current study.

First, the extant literature has diverged regarding if volunteering is a complement or substitute to giving. Some research has found that volunteering is positively correlated with giving money (Brown & Lankford, 1992; Cappellari, Ghinetti, & Turati, 2011), while other studies have found that giving time and money are negatively correlated based on the opportunity cost of giving time and the affordability of giving money (Bauer, Bredtmann, & Schmidt, 2013). Given the substitute versus complement dichotomy in the extant literature, it is important to take into consideration the prior giving behavior of study participants, as those who have not previously given may differ from current donors in their assessment of how their volunteering impacts their giving. Therefore, the study used a binary categorical variable related to prior year giving as a between-subject factor, with those who made no gift categorized in one group and those who made a gift of any size categorized into the other.

Second, this study sought to assess the influence of volunteering on giving by considering annual giving variance in the years prior to, during, and immediately following participation in a mentoring program. However, some participants chose to volunteer again in the year immediately following their first year as a mentor. Thus, for these participants, both the second and third measures of annual giving may have been influenced by contemporary volunteer experience. It would not be prudent to remove these participants from the sample entirely, as doing so would leave only those who chose not to participate a second year. Such sorting may have artificially isolated those with a less than positive view of the institution or volunteer program, which may also relate to lower giving values. Therefore, this study sought to consider both those who participated in a second consecutive year and those who did not, while also considering potential variance between these two groups. Thus, the study used a binary categorical variable related to subsequent year volunteering as a between-subject factor, with those who did not participate in the mentor program the following year categorized in one group and those who did volunteer again categorized into the other.

Model

The statistical model for the study was a three-factor mixed model design with one 3-level within factor and two 2-level between factors. The 3-level within factor was time as measured in three intervals related to the year of volunteer mentorship experience: the year prior to the first year of participation in the volunteer mentor program (Year 1), the year of first participation in the mentor program (Year 2), and the year following the first year of participation in the mentor program (Year 3). The two 2-level between factors included a binary (yes/no) variable related to whether an individual made a gift in year one, and another binary

(yes/no) variable related to whether the individual participated in the mentor program again in year 3.

The statistical model was the following:

$$Y_{ijk} = \mu + T_i + A_j + B_k + T_i A_j + T_i B_k + T_i A_j B_k + e_{ijk}$$

Where:

Y_{ijk} = Amount donated

μ = grand mean

T_i = time (pre/during/post volunteer year)

A_j = Gift year 1 (yes/no)

B_k = Participate in year 3 (yes/no)

$T_i A_j$ = The interaction effect of time and prior giving status

$T_i B_k$ = The interaction effect of time and subsequent year volunteer status

$T_i A_j B_k$ = The interaction effect of time, prior giving status, and subsequent volunteer status

e_{ijk} = residual

Summary

As institutions of higher education seek to increase their ability to secure philanthropic gifts from alumni, many have sought to utilize alumni volunteer programs to engage alumni and induce greater levels of giving (Dean, 2007). To assess the efficacy of this strategy, this study considered the giving rates of first-time alumni volunteers in a semester-long alumni-student career mentor program between the 2012-2013 and 2017-2018 academic years. Through the use of a repeated measure ANOVA statistical method, the study sought to determine if there is a statistically significant variance in the giving rates of first-time volunteers as measured over three periods: the year prior to their first year as a mentor, their first year as a mentor, and the

year following their first year as a mentor. The study explored the influence of a participant's prior giving behavior and subsequent volunteer behavior as it relates to giving variance and their volunteer experience. The objective of the study was to determine the effect that volunteering for a higher education institution has on giving.

Chapter 4

Results

Overview

To contribute to the knowledge in the field regarding the impact of alumni volunteering on giving, the proposed study analyzed the giving behavior of 690 first-time mentors in an alumni mentorship program at a private liberal arts institution located in a mid-sized metropolitan area in the East South-Central region of the United States. The research assessed how participation in the semester-long, multi-interaction alumni mentorship program influenced giving rates by comparing the annual giving of participants in the year prior to their first year as a mentor, in their first year as a mentor, and in the year immediately following their first mentor year. In addition, the study considered the influence of prior giving behavior and subsequent volunteer behavior by creating two dichotomous, categorical variables. A variable related to prior giving categorized participants by whether they gave in the year prior to mentorship. Another variable related to subsequent volunteer behavior, categorized participants by whether they volunteered for the program again in the year following their first program participation.

Data for the present study was collected from a private liberal arts institution located in a mid-sized metropolitan area in the East South-Central region of the United States. The data included philanthropic giving for alumni participants in an alumni-student career mentoring program between the 2012-2013 and 2017-2018 academic years. Alumni participants were of any academic and demographic background, and included graduates of the institution's undergraduate or graduate degree programs.

To help ensure uniformity of participant experience, in cases where an individual participated in the program multiple times between 2012-2013 to 2017-2018, the study

considered only the first year of participation. For each unique first-time alumni participant in the alumni mentorship program, the study used a repeated measure ANOVA method to determine if a statistically significant variance occurred across the three chronological measures of philanthropic giving.

Post-Hoc Power Analysis

Using G*Power (Faul, Erdfelder, Buchner & Lang, 2009), the researcher conducted a post-hoc power analysis for the sample size of first-time alumni participants in the volunteer alumni-student mentoring program to assess the parameters associated with the analysis of variance test. The alpha was set at .05 and the minimum detectable effect size was set at $f = .10$ consistent with Cohen's values for small magnitude (Cohen, 1988). With a total sample of 690, power was assessed to be .999 for the ANOVA test.

Contextual Baseline of the Effect of Time on Giving

The three research questions in this study are predicated on a null hypothesis that, absent an effectual intervention, mean alumni annual giving at the studied institution of higher education would remain the same across a sequential three-year period. That is to say that the null hypothesis for each research question is $H_0: T_1 = T_2 = T_3$, wherein T represents annual giving each year, and the subscripts 1-3 represent three sequential years. The present study sought to determine the influence of participation in the alumni mentor program on giving by measuring variance in giving across three time periods inclusive of participation in such program. Given this research intent, it was first critical to substantiate what change, if any, would be expected in average alumni giving across three sequential years without an intervention.

To establish this contextual baseline, the researcher used total fiscal year giving data of those alumni with complete giving data at the studied institution in fiscal years 2013 through 2021. The sample was $n = 12,327$. Then, using a repeated measure ANOVA design, the researcher considered what statistically significant variance occurred in mean alumni annual giving over the 7 most recent sequential 3-year periods: 2013-2015, 2014-2016, 2015-2017, 2016-2018, 2017-2019, 2018-2020, and 2019-2021.

All seven repeated measure analyses of respective 3-year periods found no significant variance in alumni giving across the three sequential time periods studied. Mauchly's test indicated that the assumption of sphericity had been violated in each analysis, therefore Greenhouse–Geisser corrected tests are reported.

Table 2
Results for within factor (time)

3-Year Period	df	MS	f	p	η^2
2013-2015	1.697	20913.26	1.104	.332	< .001.
2014-2016	1.651	20351.38	0.637	.500	< .001.
2015-2017	1.261	15546.88	0.842	.384	< .001.
2016-2018	1.068	13160.19	2.736	.096	< .001.
2017-2019	1.174	14474.62	1.986	.156	< .001.
2018-2020	1.774	21867.96	1.461	.233	< .001.
2019-2021	1.902	23446.25	1.653	.193	< .001.

Greenhouse–Geisser corrected tests reported.

The results of the analysis suggest that, when considered at the $\alpha < .05$ level, average alumni giving at the studied institution does not statistically change over a three-year period. This finding substantiates the null hypothesis of the three research questions for this study: $H_0: T_1 = T_2 = T_3$, wherein T represents annual giving each year, and the subscripts 1-3 represent three sequential years.

Analysis Results

To determine whether participation in a semester-long, in-person alumni-student mentor program influences mentor philanthropic giving to the university, and whether prior year giving status or subsequent year volunteer status further influence any year-to year giving variance, the researcher conducted a mixed model design repeated measure ANOVA analysis with one 3-level within factor and two 2-level between factors. The 3-level within factor was time as measured in three intervals: the year prior to the first year of participation in the volunteer mentor program (year 1), the year of first participation in the mentor program (year 2), and the year following the first year of participation in the mentor program (year 3). The two 2-level between factors included a binary (yes/no) variable related to whether an individual made a gift in year one, and another binary (yes/no) variable related to whether the individual participated in the mentor program again in year 3. The descriptive statistics of the analysis are in Tables 3-5 below. The results can be found in Tables 6-7.

Table 3
Descriptive Statistics for the Annual Giving of Alumni Mentor Program Participants by Time Related to First Participation Year

	M (SE)	n	95% CI	
			LL	UL
Year Prior to Volunteer Mentor Experience (Year 1)	178.01 (30.06)	690	118.98	237.04
Year of Volunteer Mentor Experience (Year 2)	198.10 (30.23)	690	138.75	257.45
Year Following Volunteer Mentor Experience (Year 3)	240.79 (38.61)	690	164.99	316.59

Table 4

Descriptive Statistics for the Annual Giving of Alumni Mentor Program Participants by Time Related to First Participation Year and Prior Year Giving Status

Prior Year Giving	Time	M (SE)	n	95% CI	
				LL	UL
Did Not Give	Year Prior to Mentor	0.00 (0.00)	453	0	0
	Year of Mentor	38.94 (10.20)	453	18.89	58.99
	Year Following Mentor	41.16 (10.07)	453	21.37	60.95
Gave	Year Prior to Mentor	518.26 (83.28)	237	354.19	682.34
	Year of Mentor	502.32 (82.39)	237	340.01	664.63
	Year Following Mentor	622.36 (106.57)	237	412.41	832.31

Table 5

Descriptive Statistics for the Annual Giving of Alumni Mentor Program Participants by Time Related to First Participation Year and Subsequent Year Volunteer Status

Next Year Volunteer	Time	M (SE)	n	95% CI	
				LL	UL
Did Not Volunteer	Year Prior to Mentor	165.02 (33.88)	517	98.45	231.58
	Year of Mentor	192.99 (33.28)	517	127.61	258.36
	Year Following Mentor	229.13 (44.85)	517	141.02	317.24
Volunteered	Year Prior to Mentor	216.85 (64.34)	173	89.85	343.85
	Year of Mentor	213.39 (68.33)	173	78.50	348.27
	Year Following Mentor	275.63 (75.95)	173	125.71	425.95

Table 6

Results for within factor (time)

Source	df	MS	f	p	η^2
Time	2.00	915768.66	6.64	0.001	0.010
Time * GavePriorYear	1.80	753054.20	5.47	0.006	0.008
Time * NextYearVolunteer	1.80	81531.96	0.59	0.537	0.001
Time * GavePriorYear * NextYearVolunteer	1.80	157793.01	1.15	0.314	0.002
Error	1231.29	137786.25			

Note. Mauchly's test indicated violation of sphericity. Greenhouse–Geisser corrected tests reported.

Table 7
Results for within factor (time) contrasts

Source	Year-to-Year	df	MS	f	p	η^2
Time	Year 1 to Year 2	1	993.838	.005	.943	<.001
	Year 2 to Year 3	1	2415555.17	10.936	.001	.016
	Year 1 to Year 3	1	2514542.28	7.638	.006	.011
Time * GavePreviousYear	Year 1 to Year 2	1	646854.90	3.372	.067	.005
	Year 2 to Year 3	1	2702867.574	12.237	<.001	.018
	Year 1 to Year 3	1	705208.803	2.142	.144	.003
Error (Time)	Year 1 to Year 2	686	191834.77			
	Year 2 to Year 3	686	220881.00			
	Year 1 to Year 3	686	329214.625			

Note. Mauchly's test indicated violation of sphericity. Greenhouse–Geisser corrected tests reported.

Research Question 1.

1. What is the effect of participation in a semester-long, in-person alumni-student mentor program on mentor philanthropic giving to the university?

The analysis results suggest that participation in a semester-long, in-person alumni-student mentor program influences mentor philanthropic giving to the university as measured by variances in mean participant annual giving over a three-year period inclusive of first program participation. Mauchly's test indicated that the assumption of sphericity had been violated, $\chi^2(2) = 83.13$, $p < .001$, therefore Greenhouse–Geisser corrected tests are reported ($\varepsilon = 0.90$). The results show there was a significant main effect of time (as it relates to participation in the volunteer alumni mentor program) and annual giving, $F(2, 1231) = 6.64$, $p < .001$, $\eta^2 = .010$. See results in Table 6 above.

Contrasts revealed that there was a statistically significant increase in annual giving from the year prior to participation in the mentor program (Year 1) to the year following participation in the mentor program (Year 3), $F(1, 686) = 7.64$, $p = .006$, $\eta^2 = .011$. Furthermore, there was a

statistically significant increase in annual giving from the year of participation in the mentor program (Year 2) to the year following participation in the program (year 3), $F(1, 686) = 10.94$, $p < .001$, $\eta^2 = .016$. However, there was no statistically significant difference in giving in the year prior to participation in the mentor program (year 1) to the year of program participation (year 2), $F(1, 686) = .005$, $p = .943$, $\eta^2 < .001$. This suggests that the primary influence of volunteering on giving did not occur concurrent with the volunteer experience, but instead was most pronounced in the year following the volunteer experience. See results in Table 7 above.

Research Question 2.

2. Does having made a gift in the year prior to participation in the alumni-student mentor program affect the degree to which participation in the program influences giving?

The differences between those who gave in the year prior to their first volunteer year and those who did not previously give was statistically significant, $F(1, 686) = 57.34$, $p < .001$, $\eta^2 = .077$. See results in Table 8 below.

In addition, there was a significant interaction effect of time and prior year giving status, $F(1.80, 488) = 5.47$, $p = .006$, $\eta^2 = .008$. See results in Table 6 above.

Table 8
Results for between factors

Source	df	MS	f	p	η^2
Intercept	1	42043519.93	67.94	0.000	0.090
GavePriorYear	1	35483984.79	57.34	0.000	0.077
NextYearVolunteer	1	244082.23	0.39	0.530	0.001
GavePriorYear * NextYearVolunteer	1	359678.06	0.58	0.446	0.001
Error	686	618801.88			

Contrasts revealed that the interaction of time and prior year giving status did not have a statistically significant impact when considered from Time 1 to Time 3, $F(1, 686) = 2.142$, $p =$

.144, $\eta^2 = .003$. However, said interaction did have a statistically significant influence (if considered at the $\alpha < .10$ level) from Time 1 to Time 2, $(1, 686) = 3.372$, $p = .067$, $\eta^2 = .005$, and from Time 2 to Time 3, $(1, 686) = 12.237$, $p < .001$, $\eta^2 = .018$. This suggests that having made a gift in the year prior to participation in the alumni-student mentor program affects the degree to which participation in the program influences giving primarily by altering when relative to participation in the program the giving increase is likely to occur. See results in Table 7 above.

To further explore this interaction, the researcher grouped the data set along the dichotomous categorical variable GavePriorYear, and performed a repeated measure ANOVA test with year-to-year contrasts for those who did not give in the year prior to first participation in the mentor program (GavePriorYear = 0) and those who gave in the year prior to participation in the alumni mentor program (GavePriorYear = 1).

To assess the parameters associated with this subsequent series of analysis of variance tests, the researcher once again used G*Power (Faul, Erdfelder, Buchner & Lang, 2009) to conduct a post-hoc power analysis for the sample size of first-time alumni participants in the volunteer alumni-student mentoring program as grouped by whether they gave in the year prior to their mentor participation. The alpha was once again set at .05 and the minimum detectable effect size was once again set at $f = .10$ consistent with Cohen's values for small magnitude (Cohen, 1988). With a total sample of 453, power of the non-previous-year-giving group was assessed to be .996 for the ANOVA test. With a total sample of 237, the power of the previous-year-giving group was assessed to be .930 for the ANOVA test. The descriptive statistics for the two samples grouped by prior giving status can be found in Table 9 below.

Table 9
Descriptive Statistics for Annual Giving as a function of Time and Prior Year Giving Status

Prior Giving Status	Time Related to Mentor Year	M (SE)	n	95% CI	
				LL	UL
Did Not Give	Year Prior to Mentor (Year 1)	0.000 (0.00)	453	0.00	0.00
	Year of Mentor (Year 2)	38.94 (10.20)	453	18.89	58.99
	Year Following Mentor (Year 3)	41.16 (10.07)	453	21.37	60.95
Gave	Year Prior to Mentor (Year 1)	518.26 (83.28)	237	354.19	682.34
	Year of Mentor (Year 2)	502.32 (82.39)	237	340.01	664.62
	Year Following Mentor (Year 3)	622.36 (106.57)	237	412.42	832.31

The main effect of time (as it relates to participation in the volunteer alumni mentor program) and annual giving was significant for both groups. Mauchly's test indicated that the assumption of sphericity had been violated in both groups: those who did not give in the year before, $\chi^2(2) = 23.12$, $p < .001$; those who did give in the year before, $\chi^2(2) = 35.12$, $p < .001$. Therefore, Greenhouse–Geisser corrected tests are reported: those who did not give in the year before ($\epsilon = 0.96$); those who did give in the year before, ($\epsilon = 0.89$).

The results show that the main effect of time was significant for those who did not give in the year before mentoring, $F(1.91, 860.97) = 11.59$, $p < .001$, $\eta^2 = .025$; and those who did give in the year before mentoring, $F(1.76, 414.47) = 3.15$, $p < .05$, $\eta^2 = .013$. See results in Table 10 below.

Table 10
Results for within factor (time) for Prior Year Non-Givers and Givers

	Source	df	MS	f	p	η^2
Did Not Give	Time	1.905	254919.23	11.594	< .001	.025
	Error	860.971	21986.280			
Gave	Time	1.756	1147176.78	3.147	.05	.013
	Error	414.470	364500.08			

Note. Mauchly's test indicated violation of sphericity. Greenhouse–Geisser corrected tests reported.

However, the respective year-to-year contrasts reveal significant interactions regarding the influence of prior giving status on the effect that participation in the volunteer alumni program has on giving. Results for contrasts are in Table 11 below.

The difference between giving in the year prior to mentor participation (Year 1) and the year following mentor participation (Year 3) was significant at $\alpha < .10$ for both groups: those who did not give in the year before mentoring, $F(1, 452) = 16.71, p < .001, \eta^2 = .036$; and those who did give in the year before mentoring, $F(1, 236) = 2.95, p = .087, \eta^2 = .012$.

However, the prior year givers and prior year non-givers varied in terms of when within the three-year study period the significant alumni giving variance occurred. For those who did not give in the year prior to participation, there was a statistically significant increase in annual giving from the year prior to mentor participation (Year 1) to the year of mentor participation (Year 2), $F(1, 452) = 14.57, p < .001, \eta^2 = .031$. Yet there was no statistically significant change from the year of mentor participation (Year 2) to the year following mentor participation (Year 3), $F(1, 452) = .069, p = .793, \eta^2 < .001$. This suggests that, for those who were not already giving prior to participation in the volunteer mentor program, giving increased from the year prior to mentoring to the mentoring year, but then remained the same in the year following their mentor year.

In contrast, for those who gave in the year prior to participation, there was no statistical change in annual giving from the year prior to mentor participation (Year 1) to the year of mentor participation (Year 2), $F(1, 236) = .129, p = .720, \eta^2 < .001$. However, there was a statistically significant increase in annual giving from the year of mentor participation (Year 2) to the year following mentor participation (Year 3), $F(1, 236) = 5.86, p = .016, \eta^2 = .069$. This suggests that, for those who were already giving prior to participation in the volunteer mentor

program, giving did not change from the year prior to mentoring to the year in which they first served as a volunteer mentor, but then giving did significantly increase in the year following their first mentor year.

Table 11

Results for within factor (time) contrasts for prior year non-givers and givers

Source		Year-to-Year	df	MS	f	p	η^2
Did Not Give	Time	Year 1 to Year 2	1	686947.55	14.57	< .001	.031
		Year 2 to Year 3	1	2234.03	.069	.793	< .001
		Year 1 to Year 3	1	767531.10	16.707	< .001	.036
	Error (Time)	Year 1 to Year 2	452	47155.71			
		Year 2 to Year 3	452	32543.41			
		Year 1 to Year 3	452	45939.41			
Gave	Time	Year 1 to Year 2	1	60272.02	.129	.720	< .001
		Year 2 to Year 3	1	3415505.37	5.864	.016	.024
		Year 1 to Year 3	1	2568342.71	2.954	.087	.012
	Error (Time)	Year 1 to Year 2	236	468613.37			
		Year 2 to Year 3	236	582413.10			
		Year 1 to Year 3	236	869411.86			

Research Question 3.

- Does participation in the alumni-student mentor program for a second consecutive year following the first year as a mentor affect the degree to which participation in the program influences giving?

The differences between those who participated in the volunteer mentor program again the subsequent year and those who did not participate again was not statistically significant, $F(1, 686) = .39, p < .530, \eta^2 < .001$. See Table 8 above. Similarly, the interaction of time and subsequent volunteer behavior was also not significant, $F(1, 686) = .59, p < .537, \eta^2 < .001$. See Table 6 above. This suggests that an individual's decision regarding whether to participate in the volunteer program again was not significantly related to the individual's propensity to give.

Model

The results of the study suggest that time (relative to first participation the alumni mentor program), prior giving status, and the interaction of time and prior giving status had a statistically significant influence on alumni annual giving. Participation in the volunteer program for a subsequent year following the first mentor year did not have a significant correlation with alumni giving, nor did the interaction of subsequent volunteer behavior with time, prior giving status, or both. Therefore, the statistical model for the study is the following:

$$Y_{ijk} = \mu + T_i + A_j + T_i A_j + e_{ijk}$$

Where:

Y_{ijk} = Amount donated

μ = grand mean

T_i = time (pre/during/post volunteer year)

A_j = Gift year 1 (yes/no)

$T_i A_j$ = Interaction of time and prior giving status

e_{ijk} = residual

Table 12
Coefficients for Time 1

	B	SE	f	p	95% CI		η^2
					LL	UL	
Intercept	605.09	95.43	6.34	0.00	417.72	792.46	0.055
NextYearParticipate=0	-117.59	111.06	-1.06	0.29	-335.63	100.46	0.002
NextYearParticipate=1	0 ^a						
GavePreviousYear=0	-605.09	119.14	-5.08	0.00	-839.01	-371.18	0.036
GavePreviousYear=1	0 ^a						
NextYearParticipate=0 * GavePreviousYear=0	117.59	138.10	0.85	0.40	-153.55	388.73	0.001
NextYearParticipate=0 * GavePreviousYear=1	0 ^a						
NextYearParticipate=1 * GavePreviousYear=0	0 ^a						
NextYearParticipate=1 * GavePreviousYear=1	0 ^a						

a. This parameter is set to zero because it is redundant

Table 13
Coefficients for Time 2

	B	SE	f	p	95% CI		η^2
					LL	UL	
Intercept	528.57	97.089	5.44	0.00	337.94	719.20	0.041
NextYearParticipate=0	-35.55	112.99	-0.32	0.75	-257.39	186.29	0.000
NextYearParticipate=1	0 ^a						
GavePreviousYear=0	-491.23	121.21	-4.05	0.00	-729.21	-253.24	0.023
GavePreviousYear=1	0 ^a						
NextYearParticipate=0*	37.67	140.50	0.27	0.79	-238.19	313.53	0.000
GavePreviousYear=0							
NextYearParticipate=0*	0 ^a						
GavePreviousYear=1							
NextYearParticipate=1*	0 ^a						
GavePreviousYear=0							
NextYearParticipate=1*	0 ^a						
GavePreviousYear=1							

a. This parameter is set to zero because it is redundant

Table 14
Coefficients for Time 3

	B	SE	f	p	95% CI		η^2
					LL	UL	
Intercept	731.93	124.09	5.90	0.00	488.29	975.57	0.048
[NextYearParticipate=0]	-148.38	144.41	-1.03	0.31	-431.92	135.15	0.002
[NextYearParticipate=1]	0 ^a						
[GavePreviousYear=0]	-711.17	154.92	-4.59	0.00	-1015.33	-407.00	0.030
[GavePreviousYear=1]	0 ^a						
[NextYearParticipate=0] *	175.400	179.57	0.98	0.33	-177.17	527.97	0.001
[GavePreviousYear=0]							
[NextYearParticipate=0] *	0 ^a						
[GavePreviousYear=1]							
[NextYearParticipate=1] *	0 ^a						
[GavePreviousYear=0]							
[NextYearParticipate=1] *	0 ^a						
[GavePreviousYear=1]							

a. This parameter is set to zero because it is redundant

Effect Sizes

All statistically significant variances found in the present study had effect sizes (η^2) less than 0.1. According to conventions published by Cohen (1988), these values represent very small effect sizes. Therefore, while the finding of the study suggests statistically significant variances in alumni giving across a range of time parameters, it is important to note that the relative influence of participation on the mentor program on annual giving is quite small.

Non-parametric Check of Data

The data for the present study contained a high frequency of legitimate zero scores, which accurately reflected cases in which an individual made no financial contribution to the studied institution within a given year. This is an expected aspect of philanthropic data. As previously mentioned, the CASE Alumni Engagement Survey (Smith & Kaplan, 2021) found that, among higher education institutions with undergraduate and graduate student populations, only approximately 3.2% of alumni had engaged philanthropically in fiscal year 2020, while the rates of philanthropic giving for alumni who also volunteered was 26.3% (conversely the rate of those who did not give was 73.7%). The data for this study was proportional to the national level data cited by the CASE Alumni Engagement Survey (Smith & Kaplan, 2021), as the rate of non-givers for Year 1, Year 2, and Year 3 was 66%, 66%, and 64%, respectively.

In contrast to the influence of non-givers in philanthropic research, large philanthropic contributions are also vital to consider. Since 2006, the Association of Fundraising Professionals (AFP) has partnered with the Center on Nonprofits and Philanthropy at the Urban Institute to conduct a survey of nonprofit organizations and their philanthropic receipts. Known as the Fundraising Effectiveness Project, the survey collects data from organizations that receive at least \$5,000 in annual philanthropy and have 25 or more donors in each of the last six years

(Association of Fundraising Professionals, n.d.). According to its 2018 annual survey of nonprofits, large gifts of \$1,000 or more comprised 87.55% of all philanthropic revenue at the surveyed organizations, while gifts from \$250-\$999 and those under \$250 comprised 6.61% and 7.48% respectively (Association of Fundraising Professionals, 2018).

The data for the present study was proportional to the national level data, as gifts of \$1,000 or more represented only 6%, 7%, and 8% of cases, but 82%, 81%, and 85% of total revenue for Years 1, 2, and 3, respectively. Indeed, the top 1% of gifts ($n=7$) comprised 37%, 30%, and 33% of total giving within Years 1, 2, and 3, respectively. Given the proportionate value of these larger gifts to the philanthropic ecosystem, it is important to consider them within the broader philanthropic research.

Commensurate with the overall U.S. philanthropic environment, the present study included a high frequency of zero gift scores and a lesser number of high value scores. To reflect the nature of philanthropy, it is important to capture and consider this range of values rather than eliminate the outliers. However, the high frequency of zero scores and the presence of distinct high-value outliers also presents a potential for skewed data and for the relative samples to have different variance. While the large sample size in the present student ($n=690$) likely makes it robust to these concerns, non-parametric tests can help substantiate the findings.

Therefore, to check and confirm the findings of the Repeated Measure ANOVA, the researcher conducted a follow-up non-parametric test using the Friedman's ANOVA approach (Friedman, 1937). The Friedman's ANOVA method compares a rank ordering of scores across multiple measures, instead of the actual value. Therefore, for each case, the year with the lowest score is assigned a 1, the middle value year a 2, and the highest year a 3. The mean values of each year can then be used to compare the relative magnitude of values – though not the absolute

magnitude. Nevertheless, if the Friedman's ANOVA method finds variance in similar ways to the Repeated Measure ANOVA, then such findings help confirm one another.

Much as the repeated measure ANOVA found that the main effect of time was significant, $F(2, 1231) = 6.64$, $p < .001$, $\eta^2 = .010$, the Friedman ANOVA test found that the weight of participants significantly changed over the evaluated three years, $\chi^2(2) = 11.883$, $p = .003$.

Moreover, the researcher used the Wilcoxon Signed Rank tests (Wilcoxon, 1945), which is similar to the Friedman's test but compares only two samples, to consider the year-to-year changes. The Wilcoxon test found that the weight of participants significantly changed from Year 1 to Year 2, $T = 25114.5$, $p < .001$, $r = -.09$, from Year 2 to Year 3 if considered at the $\alpha < .10$ level, $T = 19790$, $p < .082$, $r = -.05$, and from Year 1 to Year 3, $T = 29979.5$, $p < .001$, $r = -.11$.

The findings of these exploratory non-parametric tests resemble those of the repeated measure ANOVA and further support the argument that the repeated measure tests were robust to any potential normality and homogeneity of variance issues in the sample.

Summary

To determine whether participation in a semester-long, in-person alumni-student mentor program influences mentor philanthropic giving to the university, and whether prior year giving status or subsequent year volunteer status further influence any year-to year giving variance, the researcher conducted a mixed model design repeated measure ANOVA analysis with one 3-level within factor and two 2-level between factors. The 3-level within factor was time as measured in three intervals: the year prior to the first year of participation in the volunteer mentor program (year 1), the year of first participation in the mentor program (year 2), and the year following the

first year of participation in the mentor program (year 3). The two 2-level between factors included a binary (yes/no) variable related to whether an individual made a gift in year one, and another binary (yes/no) variable related to whether the individual participated in the mentor program again in year 3.

The results of the analysis suggest that there was a significant main effect of time (as it relates to participation in the volunteer alumni mentor program) and annual giving, $F(2, 1231) = 6.64, p < .001, \eta^2 = .010$. In addition, the difference between those who gave in the year prior to their first volunteer year and those who did not previously give was statistically significant, $F(1, 686) = 57.34, p < .001, \eta^2 = .077$. Moreover, there was a significant interaction effect of time and prior year giving status, $F(1.80, 488) = 5.47, p = .006, \eta^2 = .008$.

The difference between those who participated in the volunteer mentor program again the subsequent year and those who did not participate again was not statistically significant, $F(1, 686) = .39, p < .530, \eta^2 < .001$. Similarly, the interaction of time and subsequent volunteer behavior was also not significant, $F(1, 686) = .59, p < .537, \eta^2 < .001$.

Contrasts revealed that there was a statistically significant increase in annual giving from the year prior to participation in the mentor program (Year 1) to the year following participation in the mentor program (Year 3), $F(1, 686) = 7.64, p = .006, \eta^2 = .011$. Furthermore, there was a statistically significant increase in annual giving from the year of participation in the mentor program (Year 2) to the year following participation in the program (year 3), $F(1, 686) = 10.94, p < .001, \eta^2 = .016$. However, there was no statistically significant difference in giving in the year prior to participation in the mentor program (Year 1) to the year of program participation (year 2), $F(1, 686) = .005, p = .943, \eta^2 < .001$.

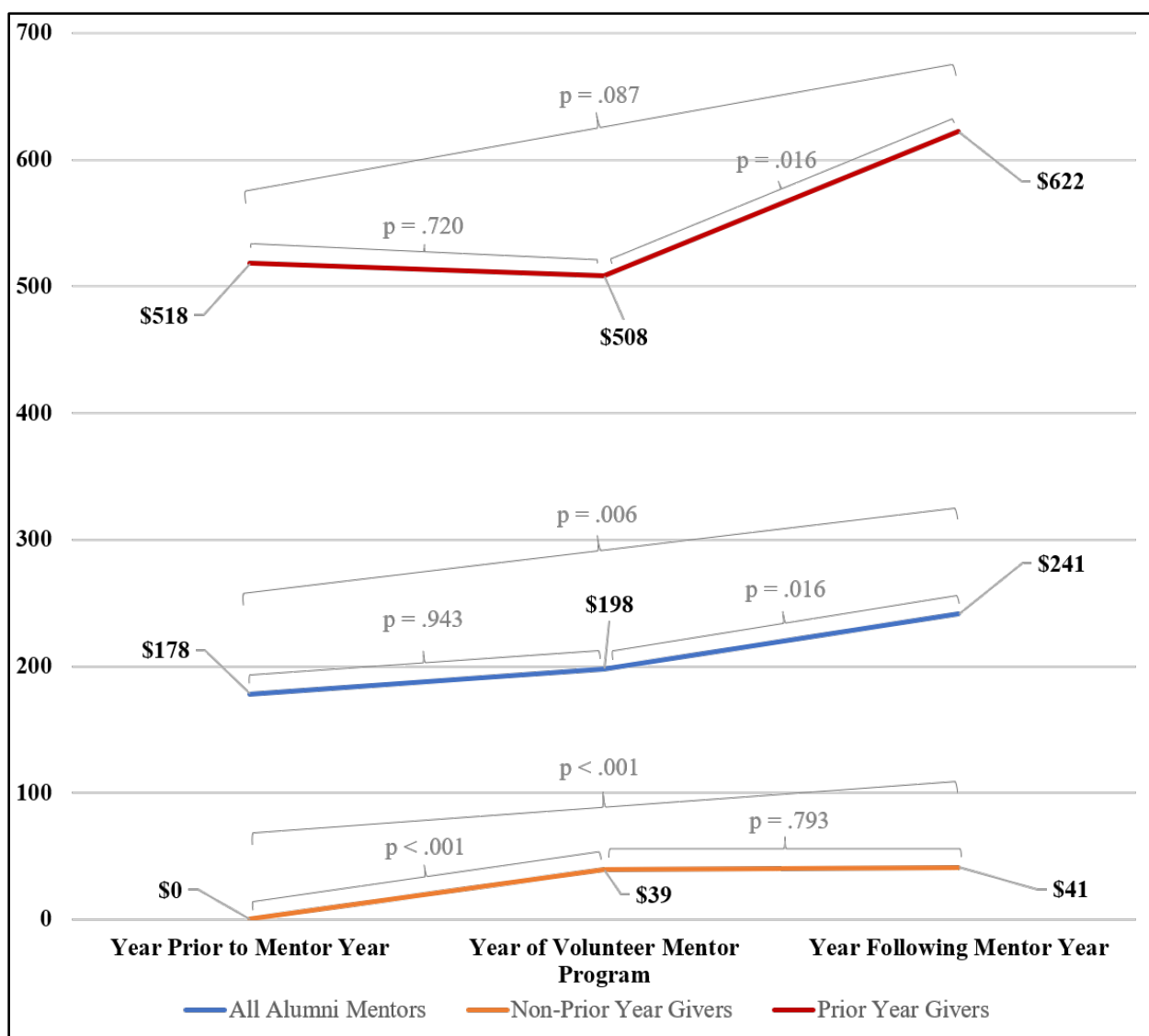
Moreover, to further explore the influence of prior giving status on time (as a function of volunteer program participation), the researcher grouped the data set along the dichotomous categorical variable *GavePriorYear*, and performed a repeated measure ANOVA test with year-to-year contrasts for those who did not give in the year prior to first participation in the mentor program (*GavePriorYear* = 0) and those who gave in the year prior to participation in the alumni mentor program (*GavePriorYear* = 1). As was the case with the full sample, the results showed that the main effect of time was significant for those who did not give in the year before mentoring, $F(1.91, 860.97) = 11.59, p < .001, \eta^2 = .025$; and those who did give in the year before mentoring, $F(1.76, 414.47) = 3.15, p = .05, \eta^2 = .013$.

The respective year-to-year contrasts revealed significant interactions regarding the influence of prior giving status on the effect that participation in the volunteer alumni program has on giving. The difference between giving in the year prior to mentor participation (Year 1) and the year following mentor participation (Year 3) was significant at $\alpha < .10$ for both groups: those who did not give in the year before mentoring, $F(1, 452) = 16.71, p < .001, \eta^2 = .036$; and those who did give in the year before mentoring, $F(1, 236) = 2.95, p = .087, \eta^2 = .012$.

However, the prior year givers and prior year non-givers varied in terms of when within the three-year study period the significant alumni giving variance occurred. For those, who did not give in the year prior to participation, there was a statistically significant increase in annual giving from the year prior to mentor participation (Year 1) to the year of mentor participation (Year 2), $F(1, 452) = 14.57, p < .001, \eta^2 = .031$. Yet there was no statistically significant change from the year of mentor participation (Year 2) to the year following mentor participation (Year 3), $F(1, 452) = .069, p = .793, \eta^2 < .001$.

In contrast, for those who gave in the year prior to participation, there was no statistical change in annual giving from the year prior to mentor participation (Year 1) to the year of mentor participation (Year 2), $F(1, 236) = .129, p = .720, \eta^2 < .001$. However, there was a statistically significant increase in annual giving from the year of mentor participation (Year 2) to the year following mentor participation (Year 3), $F(1, 236) = 5.86, p = .016, \eta^2 < .069$.

Figure 1. Mean Annual Giving by Year Relative to Volunteering and Prior Giving Status



These statistically significant variances notwithstanding, all statistically significant variances found in the study had effect sizes (η^2) less than 0.1. According to conventions published by Cohen (1988), these values represent very small effect sizes. Therefore, while the finding suggests statistically significant variances in alumni giving across a range of time parameters, it is important to note that the relative influence of participation on the mentor program on annual giving is quite small.

Chapter 5

Discussion

Overview

Philanthropy is a significant factor in the success of institutions of higher education in the United States. According to the annual Voluntary Support of Education (VSE) survey conducted and reported by the Council for Advancement and Support of Education (CASE), during the 2019-2020 academic year, American colleges and universities raised \$49.60 billion in philanthropic support. This level of support represented the largest amount of philanthropy ever collectively raised in a single academic year by higher education institutions (Kaplan, 2020).

However, while total philanthropic dollars contributed to higher education has reached its highest levels in recent years, data from the National Center for Education Statistics (NCES) demonstrates that, as a proportion of total higher education revenue, philanthropy has remained largely flat over the last two decades (National Center for Education Statistics, 2021). Indeed, comprehensive longitudinal research from the Indiana University Lilly Family School of Philanthropy suggests that overall rates of philanthropic giving, and giving to educational institutions specifically, have experienced a statistically significant decline during the first two decades of the 21st century (Indiana University Lilly Family School of Philanthropy, 2019).

In response to the decline in philanthropic giving rates to higher education, many philanthropic practitioners and higher education researchers have explored the factors that influence giving. Much of this research has identified factors inherent to the individual prospective donor, but beyond the immediate influence of any development officer-induced effort. For example, research suggests that an individual's propensity to give may be influenced by his or her income, age, education level, or the distance he or she lives from the college

campus (Lara & Johnson, 2014; McAlexander, Koenig, & DuFault, 2016; Van Slyke & Brooks, 2005). While recognition of these factors is important as fundraising professionals consider potential philanthropic prospects, it is difficult for the practitioner to directly influence these factors to increase the propensity for giving.

Furthermore, additional literature in the field suggests that the current emotional and social connection that a prospective donor feels for a university also is a significant predictor of his or her giving (Sun, Hoffman, & Grady, 2007). Studies have found that individuals are more likely to support their alma mater if they feel they know and trust its leaders (Degasperri & Mainardes, 2017), if they advocate for the university with their peers (Heckman & Guskey, 1998), and if they personally identify with the university's brand (Stephenson & Bell, 2014).

Given the extant research regarding the influence of a prospective donor's emotional and social connection on his or her giving, higher education leaders often employ alumni engagement strategies to increase donor emotional connection and, thereby, donor giving (Dean, 2007). However, empirical research regarding the association between alumni engagement and alumni giving is somewhat inconclusive. While some prior studies have found a positive correlation between alumni event attendance and giving (Lara & Johnson, 2014; Weerts & Ronca, 2007; 2008), others have questioned whether alumni involvement alone results in greater levels of giving (Caboni & Eiseman, 2005). Similarly, when it comes to volunteering and its influence on giving, some research has found that volunteering is positively correlated with giving money (Brown & Lankford, 1992; Cappellari, Ghinetti, & Turati, 2011), while other studies have found that giving time and money are negatively correlated based on the opportunity cost of giving time and the affordability of giving money (Bauer, Bredtmann, & Schmidt, 2013; Duncan, 1999).

Purpose.

Given the importance of philanthropy to U.S. higher education, the common use of alumni engagement strategies to increase giving, and the divergence within the extant literature regarding the correlation between alumni giving and volunteering, it is important for the higher education industry to better understand how a donor's contribution of time influences his or her contribution of money. To address that question and contribute new knowledge to the field, the current study assessed the effect that volunteering for a higher education institution has on giving to that institution.

Data for the study was collected from a private liberal arts institution located in a mid-sized metropolitan area in the East South-Central region of the United States. The data included philanthropic giving for 690 alumni participants in an alumni-student career mentoring program between the 2012-2013 and 2017-2018 academic years. Therefore, all data for the study pre-existed the Covid-19 pandemic, which substantially altered higher education operations. Alumni participants were of any academic and demographic background, and were graduates of the institution's undergraduate or graduate degree programs.

The study utilized a repeated measure ANOVA method to determine if a statistically significant variance occurred across three chronological measures of philanthropic giving – total giving to the institution in the year prior to the first year of participation, total giving in the year of first-time participation, and total giving in the year immediately following the first year of participation. In addition to analyzing variance in annual giving over three measures across three consecutive years, the study also considered the influence of two binary categorical variables related to whether participants made a financial gift in the year immediately prior to their first

year of participation, and if they participated in the volunteer program again in the year immediately following their first year of participation.

In addition to building upon the previously mentioned existing empirical research regarding the determinants of philanthropic giving and the correlation between volunteering and giving, the study was informed by two foundational theories of social interaction and organizational engagement that are highly relevant to fundraising. According to higher education fundraising scholar Noah Drezner (2009), perceptions among fundraising professionals regarding the influence of alumni engagement on alumni giving are grounded in organizational identification and social exchange theories.

As it relates to organizational identification, Chung-Hoon, Hite, and Hite (2005; 2007) developed the Donor/Organizational Integration model, in which they theorized that donor engagement with an organization influences giving because it strengthens a donor's identification with the organization in two ways. First, through a relational construct, involvement enhances the personal relationship of the donor with the people of the organization, which increases the sense of personal satisfaction the donor feels when giving to the organization. Secondly, through formal structural interaction, the donor feels a sense of responsibility for or influence over the structures and processes of the organization, and this greater influence over the policies and operations of the organization enhances giving likelihood.

In their theories of Social Exchange, Homans (1958) and Blau (1964) argued that human behavior is heavily influenced by an exchange of goods, and that social networks are bound together through a sense of reciprocity associated with that exchange. Homans argued that an individual's perception of the likelihood of a returned gift influences the individual's frequency and scale of giving. Importantly, for Homans and Blau, the social exchange involves an

inherent, although not necessarily fully conscious, decision process in which people assess the potential value to be gained from offering a resource to a potential recipient, and that assessment of future return is fundamental to their decision regarding what gift they first offer.

Research Questions.

To contribute to the knowledge in the field regarding the impact of alumni volunteering on giving, the study analyzed the giving behavior of first-time mentors in an alumni mentorship program at a private liberal arts institution located in a mid-sized metropolitan area in the East South-Central region of the United States. The research assessed how participation in the semester-long, multi-interaction alumni mentorship program influenced giving rates by comparing the annual giving of participants in the year prior to their first year as a mentor, in their first year as a mentor, and in the year immediately following their first mentor year.

The research questions for the study were threefold:

1. What is the effect of participation in a semester-long, in-person alumni-student mentor program on mentor philanthropic giving to the university?
2. Does having made a gift in the year prior to the first year of participation in the alumni-student mentor program affect the degree to which participation in the program influences giving?
3. Does participation in the alumni-student mentor program for a second consecutive year following the first year as a mentor affect the degree to which participation in the program influences giving?

Findings.

The findings suggests that participation in the semester-long, in-person alumni-student mentor program resulted in a significant variance in the annual philanthropic giving rates of the

volunteer alumni mentors, $F(2, 1231) = 6.64, p < .001, \eta^2 = .010$. Mean annual philanthropic giving of volunteer alumni mentors increased from \$178 in the year prior to their participation in the mentor program (Year 1) to \$241 in the year following their participation in the mentor program (Year 3), $F(1, 686) = 7.64, p = .006, \eta^2 = .011$.

The findings also suggest that the difference between those who gave in the year prior to their first volunteer year and those who did not previously give was statistically significant, $F(1, 686) = 57.34, p < .001, \eta^2 = .077$, as was the interaction effect of time and prior year giving status, $F(1.80, 488) = 5.47, p = .006, \eta^2 = .008$. The difference between those who subsequently participated in the volunteer mentor program again and those who did not participate again was not statistically significant, $F(1, 686) = .39, p = .530, \eta^2 = .001$.

As indicated by the significant interaction effect of time and prior giving status, the timing of the significant growth within the three-year period was somewhat dependent on whether the individual was already giving financially prior to the volunteer experience. For those who did not give in the year prior to participation, there was a statistically significant increase in annual giving from the year prior to mentor participation (Year 1) to \$39 in the year of mentor participation (Year 2), $F(1, 452) = 14.57, p < .001, \eta^2 = .031$. Yet the increase from \$39 in the year of mentor participation (Year 2) to \$41 in the year following mentor participation (Year 3) was not statistically significant, $F(1, 452) = .069, p = .793, \eta^2 < .001$.

Conversely, for those who gave in the year prior to participation, mean annual giving decreased slightly from \$518 in the year prior to mentor participation (Year 1) to \$508 in the year of mentor participation (Year 2), although that variance was not statistically significant, $F(1, 236) = .129, p = .720, \eta^2 < .001$. However, there was a statistically significant increase in annual

giving from \$508 in the year of mentor participation (Year 2) to \$622 in the year following mentor participation (Year 3), $F(1, 236) = 5.86$, $p = .016$, $\eta^2 < .069$.

Synthesis of Findings

Prior literature in the field regarding alumni engagement and giving has suggested that there are determinants of philanthropic giving, such as prospective donor demographics and past experiences, that higher education professionals cannot easily influence (Van Slyke & Brooks, 2005; Lara & Johnson, 2014; McAlexander, Koenig, & DuFault, 2016). Furthermore, additional research has suggested that it is possible for universities to enhance the sense of connection that prospective donors feel to the institution through strategic engagement with alumni, (Sun, Hoffman, & Grady, 2007; Heckman & Guskey, 1998; Stephenson & Bell, 2014). As a result, many higher education development professionals have attempted to induce greater levels of alumni giving by employing alumni engagement programs that enhance the emotional connection alumni feel for the university (Dean, 2007). However, research regarding the association between alumni engagement and alumni giving is divergent. While some prior studies have found a positive correlation between alumni event attendance and giving (Lara & Johnson, 2014; Weerts & Ronca, 2007; 2008), others have questioned whether alumni involvement alone results in greater levels of giving (Caboni & Eiseman, 2005). Similarly, when it comes to volunteering and its influence on giving, some research has found that volunteering is positively correlated with giving money (Brown & Lankford, 1992; Cappellari, Ghinetti, & Turati, 2011), while other studies have found that giving time and money are negatively correlated based on the opportunity cost of giving time and the affordability of giving money (Bauer, Bredtmann, & Schmidt, 2013; Duncan, 1999).

The present study sought to contribute to the knowledge in the field regarding the correlation between alumni volunteering and philanthropic giving by analyzing the giving behaviors of 690 first-time volunteer alumni participants in a semester-long alumnus-student career mentoring program.

Research Question 1.

The first research question sought to understand if participation in the semester-long, in-person alumni-student mentor program influenced mentor philanthropic giving to the university. This research question aligned with existing research as it addressed how participation in an alumni mentor program would influence giving and, moreover, how the contribution of volunteer time correlates with giving money.

The findings suggests that participation in the semester-long, in-person alumni-student mentor program resulted in a significant variance in the annual philanthropic giving rates of the volunteer alumni mentors, $F(2, 1231) = 6.64, p < .001, \eta^2 = .010$. The mean annual philanthropic giving of volunteer alumni mentors increased from \$178 in the year prior to their participation in the mentor program (year 1) to \$241 in the year following their participation in the mentor program (Year 3), $F(1, 686) = 7.64, p = .006, \eta^2 = .011$. Furthermore, there was a statistically significant increase in annual giving from the year of participation in the mentor program (Year 2) to the year following participation in the program (year 3), $F(1, 686) = 10.94, p < .001, \eta^2 = .016$. However, there was no statistically significant difference in giving in the year prior to participation in the mentor program (Year 1) to the year of program participation (year 2), (Year 1) $F(1, 686) = .005, p = .943, \eta^2 < .001$.

This finding suggests that alumni engagement programming does have a positive influence on alumni giving, in line with previous literature (Lara & Johnson, 2014; Weerts &

Ronca, 2007; 2008). However, the analysis suggests that the correlation of giving time and giving money is more nuanced, as the primary influence of volunteering on giving did not occur concurrent with the volunteer experience, but instead was most pronounced in the year following the volunteer experience.

Research Question 2.

The second research question sought to explore whether having made a gift in the year prior to participation in the alumni-student mentor program influenced the degree to which participation in the program influenced giving. As previously mentioned, the extant literature has diverged regarding if volunteering is a complement or substitute to giving. Some research has found that volunteering is positively correlated with giving money (Brown & Lankford, 1992; Cappellari, Ghinetti, & Turati, 2011), while other studies have found that giving time and money are negatively correlated based on the opportunity cost of giving time and the affordability of giving money (Bauer, Bredtmann, & Schmidt, 2013). Given the substitute versus complement dichotomy in the extant literature, it was important to take into consideration the prior giving behavior of study participants, as those who have not previously given may differ from current donors in their assessment of how their volunteering impacts their giving. Therefore, the study used a binary categorical variable related to prior year giving as a between-subject factor, with those who made no gift categorized in one group and those who made a gift of any size categorized into the other.

The results suggest that the variance between those who gave in the year prior to their first volunteer year and those who did not previously give was statistically significant, $F(1, 686) = 57.34, p < .001, \eta^2 = .077$, as was the interaction effect of time and prior year giving status, $F(1.80, 488) = 5.47, p = .006, \eta^2 = .008$.

Contrasts revealed that the interaction of time and prior year giving status did not have a statistically significant impact when considered from Time 1 to Time 3, $F(1, 686) = 2.142$, $p = .144$, $\eta^2 = .003$. However, said interaction did have a statistically significant influence (if considered at the $\alpha < .10$ level) from Time 1 to Time 2, $(1, 686) = 3.372$, $p = .067$, $\eta^2 = .005$, and from Time 2 to Time 3, $(1, 686) = 12.237$, $p < .001$, $\eta^2 = .018$. This suggests that the influence of prior giving status did not influence the overall variance in giving, but instead was evident in when, relative to participation in the program, the giving increase was likely to occur.

To further explore this interaction, the researcher grouped the data set along the dichotomous categorical variable *GavePriorYear*, and performed a repeated measure ANOVA test with year-to-year contrasts for those who did not give in the year prior to first participation in the mentor program (*GavePriorYear* = 0) and those who gave in the year prior to participation in the alumni mentor program (*GavePriorYear* = 1).

As expected, the increases in annual giving among non-previous givers largely paralleled the variances exhibited by prior givers when considered from the year prior to mentor participation (Year 1) to the year following mentor participation (Year 3): both were significant at $\alpha < .10$: non-givers, $F(1, 452) = 16.71$, $p < .001$, $\eta^2 = .036$; givers, $F(1, 236) = 2.95$, $p = .087$, $\eta^2 = .012$. However, the prior year non-givers and prior year givers varied in terms of when within the three-year study period the significant alumni giving variance occurred.

For those who did not give in the year prior to participation, there was a statistically significant increase in annual giving from the year prior to mentor participation (Year 1) to the year of mentor participation (Year 2), $F(1, 452) = 14.57$, $p < .001$, $\eta^2 = .031$. Yet there was no statistically significant change from the year of mentor participation (Year 2) to the year following mentor participation (Year 3), $F(1, 452) = .069$, $p = .793$, $\eta^2 < .001$.

In contrast, for those who gave in the year prior to participation, there was no statistical change in annual giving from the year prior to mentor participation (Year 1) to the year of mentor participation (Year 2), $F(1, 236) = .129$, $p = .720$, $\eta^2 < .001$. However, there was a statistically significant increase in annual giving from the year of mentor participation (Year 2) to the year following mentor participation (Year 3), $F(1, 236) = 5.86$, $p = .016$, $\eta^2 < .069$.

This suggests that, for non-previous givers, participation in the volunteer program induced a statistically significant increase in giving concurrent to the volunteer experience. While for prior givers, volunteer participation did not cause an immediate change in giving, but then did induce a change in giving in the year following the volunteer experience.

The results of this research may suggest the presence of a substitute effect of volunteering on giving. The overall effect of the participation in the program, as well as the Year 1 to Year 3 effect, indicates that volunteering has a positive influence on alumni desire to give. However, for those who are already giving, the research suggests that there may be a countervailing influence associated with the additional provision of volunteer time, which initially negates the positive influence of alumni engagement. When the giving-inhibiting nature of the volunteer experience subsides, either because the alumnus ceases to volunteer or becomes accustomed to the volunteer experience, then the positive influence of alumni participation on giving becomes evident. In contrast, when considering the giving behavior of those who were not already giving, the positive influence of the alumni engagement outpaces any inhibiting influence of volunteering because the impetus to give financially was already minimal prior to the volunteer experience. Thus, evidence suggests that the Year 1 to Year 2 increase may be the result of alumni engagement, with minimal inhibiting influence from giving time. However, the giving level remains flat into Year 3 because the primary catalyst of giving – namely alumni connection

– has already manifest in Year 2. Interestingly for non-givers, even though the initial giving behavior occurred concurrently with the volunteer experience in Year 2, the removal or normalization of the volunteer experience in Year 3 did not influence giving. This suggests that the addition of a volunteer experience may temporarily inhibit the giving of those already supporting the organization, but the removal of a volunteer experience from those who began their giving and volunteering simultaneously does not influence giving.

Research Question 3.

The third research question explored if participation in the alumni-student mentor program for a second consecutive year following the first year as a mentor was correlated with the degree to which participation in the program influenced giving. Prior research (Hung, 2020) has suggested that the degree to which volunteering induces giving may be due not to the experience itself, but instead to the relative satisfaction that the participant feels for the experience. As a function of volunteer satisfaction, the study employed a dichotomous categorical variable related to whether the volunteer alumni participants opted to participate in the mentor program again in the subsequent year.

The differences between those who participated in the volunteer mentor program again the subsequent year and those who did not participate again was not statistically significant, $F(1, 686) = .39, p < .530, \eta^2 = .001$. Similarly, the interaction of time and subsequent volunteer behavior was also not significant, $F(1, 686) = .59, p < .537, \eta^2 = .001$. This suggests that an individual's decision regarding whether to participate in the volunteer program again was not significantly related to the individual's propensity to give.

Implications

The study has implications for both the professional practice of fundraising and the theoretical understandings of philanthropy. In terms of its practical implication, the findings suggest that a higher education leader could expect to see an increase in the giving of alumni volunteers as measured from the year prior to their volunteer experience to the year following their volunteering. However, the analysis suggests that the timing of that significant growth within the three-year period may be somewhat dependent on whether the individual was already giving financially prior to the volunteer experience. Non-prior givers may show an immediate significant increase in giving from the year prior to volunteering to the year of volunteering. However, their giving may then flatten into the next year. In contrast, those already giving prior to volunteering experience may exhibit no change in giving from the year before volunteering to the year of their volunteer experience. However, their giving level may then increase significantly from the volunteer year to the year following their volunteer experience. This suggests that, when considering the allocation of institutional resources for alumni engagement programs, the return-on-investment analysis may need to be considered over multiple years.

In addition, from a utilitarian consideration of the influence of the alumni volunteer program on alumni giving, the study suggests that inducing alumni to volunteer may have tangible impacts on giving which are consequential to the higher education profession. Among those alumni who were not giving to the studied institution prior to volunteering (n=453), 18.5% (n=84) became donors in the year of their volunteer experience, and 20.3% (n=92) gave in the year following their volunteer experience. This represents a significant practical implication, as moving nearly 1 in 5 non-donors to a donor status is a noteworthy outcome for higher education fundraisers.

Furthermore, of those who were already contributing to the studied university prior to the volunteer experience, the study suggests that the volunteer experience induced a practically consequential increase in giving. The average gift of these already-giving alumni increased from \$518 in the year prior to their volunteer experience to \$622 in the year following their volunteer experience – a 20.1% increase. A 20% increase in average donor gift size over a three-year period is of consequential practical importance to higher education professionals.

Finally, as it relates to theoretical implications, the study was informed by two foundational theories of social interaction and organizational engagement that are highly relevant to fundraising. According to higher education fundraising scholar Noah Drezner (2009), perceptions among fundraising professionals regarding the influence of alumni engagement on alumni giving are grounded in organizational identification and social exchange theories. Drezner argued that most fundraising professionals adopt the notion that they can increase giving by inducing alumni to identify with the institution more strongly personally – Organizational Identification Theory – and by inducing a reciprocal impulse for giving by offering prospective donors opportunities and influence – Social Exchange Theory.

Through the lens of Donor Organization Integration theory, volunteering should induce greater levels of giving because it will strengthen the personal relationship of the donor with the institution and provide the donor a sense of responsibility for the outcomes of the organization. However, according to Social Exchange Theory, the process of volunteering may or may not induce giving based upon whether the volunteer views the experience as a benefit given or a benefit received. If individuals perceive the substantial volunteering of time as an investment in the organization, then they may be less likely to also provide a financial investment until such

time when they feel they have received the socially expected return benefit from the organization.

The results of the study suggest that both Donor Organization Integration Theory and Social Exchange theories may have implications for philanthropy. Moreover, the influences associated with those theories may, indeed, interact with one another in countervailing manners. The overall effect of volunteer participation on annual giving – for the whole sample and the sample as divided along prior giving status – suggests that developing a greater connection to and affiliation with the administration of an organization does induce greater giving. Thus, the findings affirm Donor Organization Integration Theory.

However, the giving behavior of all studied alumni, and particularly the behavior of alumni who were already giving to the institution, suggests that the positive influence of Donor Organization Integration may initially be quelled by an increase in volunteer investment that effectively reduces the impulse toward greater financial giving. The positive influence of Donor Organization Integration is, therefore, not evident in current donors until the volunteer experience either ceases or normalizes. This finding lends voice to the influence of Social Exchange Theory on philanthropy.

Study Limitations

The primary limitation of the study is that the data is derived from a single institution of higher education. The context of the university and its relationship with alumni donors is not universally applicable to all institutions of higher education.

An additional potential limitation is the inherent year-to-year variations that occur in the philanthropic environment. Economic and societal forces beyond the scope of the alumni mentor program can influence giving (Lara & Johnson, 2014; McAlexander, Koenig, & DuFault, 2016;

Van Slyke & Brooks, 2005). This research sought to account for such variances by considering data of first-time participants across multiple years. However, the sample of individuals from each year were not equal. Therefore, it is possible that a relatively large sample from a three-year period that was particularly conducive or regressive to philanthropy could influenced the overall findings.

A final limitation is that the sample included a high number of non-givers, which resulted in large numbers of legitimate zero cases. In addition, the sample included a few high-value scores. The sample characteristics are reflective of the overall U.S. philanthropic ecosystem, where giving rates among volunteers are near 27% (Smith & Kaplan, 2021) and gifts over \$1,000 comprise 87% of all revenue (Association of Fundraising Professionals, 2018). Moreover, non-parametric tests found similar relationships between the giving across years, thereby helping to substantiate the present findings.

Future Research

The present research suggested that participation in a volunteer alumni program had a statistically significant increase in annual giving across a three-year window. However, the year-to-year variances varied overall and by prior-giving status. When considering the overall influence of alumni engagement, it would be helpful to take an even broader longitudinal view. Future research might consider the giving rates of alumni volunteers at one, three, or even five years following volunteer participation.

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