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Education for Citizenship: A Study of the Effects of Cocurricular Student Philanthropy Education on Prosocial Behavior

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EDUCATION FOR CITIZENSHIP: A STUDY OF THE EFFECTS OF COCURRICULAR STUDENT PHILANTHROPY EDUCATION ON PROSOCIAL BEHAVIOR

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This dissertation, by Félix José Alonso, has
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ABSTRACT

EDUCATION FOR CITIZENSHIP: A STUDY OF THE EFFECTS OF COCURRICULAR STUDENT PHILANTHROPY EDUCATION ON PROSOCIAL BEHAVIOR

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The purpose of this concurrent mixed-methods study is to explore the use of student engagement and cocurricular student philanthropy education as an approach to awareness raising and as a mechanism for creating a culture of philanthropy among college students. This dissertation is a synthesis of the review with a consensus that student engagement and cocurricular student philanthropy education create greater awareness, learning, and intentions around philanthropy and prosocial behavior, as well as increased instances of making charitable contributions and civic engagement. The study concludes that student engagement and cocurricular philanthropy education are effective mechanisms for creating a culture of giving. Therefore, emerging from this study is a call for college and universities to consider the use of cocurricular student philanthropy education as an approach to life-long engagement and giving. This dissertation is available in open access at AURA (https://aura.antioch.edu) and OhioLINK ETD Center, (https://etd.ohiolink.edu).

Keywords: alumni, alumni giving, cocurricular student philanthropy education, civic engagement, culture of philanthropy, dance marathon, fund-raising, leadership, mixed methods, philanthropy, prosocial behavior, relational leadership, servant leadership, student engagement, student leadership development, student philanthropy, transformational leadership

DEDICATION

To the memory of my mother, Miriam Magdalena Rodriguez Olmo, and my father, Reinaldo Miguel Alonso Mendieta, who always demonstrated the value of education and helped me begin. Everything I have done is because of you.

To my wife, Melinda Leigh Alonso, I am truly overwhelmed by your love, encouragement, and patience throughout this journey. Thank you for standing by my side, and for keeping me laughing during the process.

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CHAPTER I: INTRODUCTION

Overview

The purpose of this mixed-methods study is to understand the influence of cocurricular philanthropy programs on both alumni giving patterns and longer-term prosocial behavior. Student philanthropy education is becoming more popular on college and university campuses because it has the potential of serving as a stream of revenue and creating a culture of philanthropy and civic engagement, yet the practice is underresearched and most of the value is perceived as monetary for the university as opposed to developmental for the donor. This study hopes to contribute to the field's understanding of the value of student philanthropy education for both donor giving and donor development.

This chapter will provide an overview to student philanthropy education and student development, both of which are foundational areas that undergird this study. It will also provide context of the student philanthropy program that is the focus of the study and present the research questions, a brief description of the mixed-methods design, and hoped for contributions to theory and practice in the field. Finally, the chapter discusses the author's positionality, limitations of the study, and an outline of future chapters.

Significance of the Study

Today's higher education institutions are under significant pressure to increase revenue streams. Across the country, colleges and universities are developing new initiatives with the purpose of teaching students to give with the hope they will become a source of sustainable revenue. Student giving campaigns, student philanthropy councils, and dance marathon programs are a few examples. However, little research exists on how to best create a culture of giving that will truly affect the development initiatives of a campus and the prosocial behavior of the giver.

Walton (2003), for example, states that philanthropy education can be taught through curricular and cocurricular experiences. However, applying what advancement practitioners in the field know about alumni giving related to motivation to student programs as an approach seems rational but is not necessarily appropriate because it tends not to take students' frames of reference into consideration or the differences that exist between students as students and students when they are alumni. Although a culture of giving within the institution can be taught to a new generation by incorporating philanthropy education into higher education (Walton, 2003), we do not know much about it based on empirical evidence.

By exploring the influence of student philanthropy involvement on alumni giving and prosocial behavior, this study will help inform our knowledge on how a culture of philanthropy is instilled on a college or university campus. A better understanding of this phenomenon will assist practitioners in their efforts to create student philanthropy education programs that will successfully engage them as alumni in giving and prosocial behavior creating a culture of philanthropy among them.

What is Philanthropy?

The definition of philanthropy varies greatly within the literature as well as across cultures and institutions, which will be explored in Chapter II more fully. As Drezner (2011) notes, "Philanthropy can be defined by its Greek origin, the 'love of mankind,' as voluntary action for the good of others" (p. 58). However, such a lofty definition makes the phenomena difficult to capture and study. Today, philanthropy is often defined as giving of an individual's time, talent, or treasure (Drezner, 2011). This study specifically examined philanthropy in terms of volunteering and monetary contributions (time and treasure) to the university as well as civic engagement (time and talent) to the broader community.

Giving monetary contributions, volunteering and civic engagement are examples of prosocial behavior. Benson et al. (1980) state that prosocial behavior consists of both spontaneous and nonspontaneous altruistic actions. A prosocial behavior lens will be used to ground this study in theory.

An emerging body of research demonstrates the benefits of student philanthropy education for students' growth and development as community members and citizens. Engaging in student philanthropy programs is associated with students' increased awareness of social problems as well as knowledge of philanthropic processes (Ahmed & Olberding, 2007; Palka, 2007). Student philanthropy engagement is also credited with influencing student attitudes, beliefs, and behaviors related to prosocial behavior, social responsibility, and civic engagement (Markus et al., 1993). Olberding's (2012) long-term study on the effects of student philanthropy engagement after college found that alumni who participated in student philanthropy programs during their undergraduate studies demonstrated greater awareness, learning, and intentions around philanthropy, as well as increased instances of making monetary contributions, volunteering, and civic engagement compared with national averages.

Although student philanthropy education and programs are growing in popularity, the current review will demonstrate that very few studies examine their influence on future giving and prosocial behavior. Though empirical studies show that alumni attribute the student experience as a primary factor in their motivation to give (Bekkers & Wiepking, 2007), there is little information on how current college and university students begin thinking about giving and whether philanthropy education is a motivator.

Importance of Student Philanthropy Education

College and university presidents estimate that fund-raising initiatives take up approximately 20% to 35% of their time (Jackson, 2013). As institutions attempt to meet expanding financial needs, presidents are forced to identify new revenue streams to keep up with the growing costs of higher education. Alumni giving is one critical stream, and alumni are regularly asked to give back to their alma mater. National data from the annual Voluntary Support of Education estimates that alumni gave $12.15 billion to their alma maters in 2018. That is 26% of all support received in that fiscal year (Council for Advancement and Support of Education, 2019). And typically, 10% of alumni are donors who give back to their undergraduate alma mater (Council for Advancement and Support of Education, 2019).

Through student philanthropy education and programs, colleges and universities are hoping to instill in students the practice that they will give monetarily once they become alumni. Olberding (2009) cautions that college and universities are more likely to create a culture of giving by creating meaningful ways to involve students through creating awareness, developing gratitude, and cultivating giving than simply making the education about giving money.
As will be fully reviewed in Chapter II, there are a range of student philanthropy programs and differing approaches to teaching students about civic engagement, increasing awareness of social problems, and increasing knowledge about philanthropic problems (Olberding, 2009). Although student philanthropy dates back to at least the early 1920s (Hurvitz, 2013), in recent decades the focus has shifted not only to educating students on giving back to their institution but also on how students can give to their broader community.

Theories of student development highlight how college is a time of learning, growth, and exploration for students and that learning occurs both inside and outside of the classroom (Patton

et al., 2016). Participating in philanthropy programs allows students to explore who they are, identify their values, and develop as community members and engaged citizens. Student philanthropy is "an experiential learning approach that provides students with the opportunity to study social problems … and make decisions about investing funds in them" (Olberding, 2009, p. 463). However, there is little research that links student philanthropy education with participants' growth as civic-minded leaders and citizens. This is one of the desired contributions of this study.

The Ohio State University Student Philanthropy Program

The context of this study is the student philanthropy efforts at The Ohio State University, one the nation's largest public land-grant research universities with over 60,000 students. With its university motto, "Disciplina in civetatem," which reads as "Education for Citizenship" in English, Ohio State has had a long and rich tradition of instilling in its students the desire to be leaders and use what they have learned to make an impression in the world and be model citizens.

Ohio State was one of the first public universities to raise a $1 billion endowment when it brought in over that amount in 1999 (The Ohio State University, 1999). At the end of 2005, Ohio State's endowment grew to $1.73 billion and the university ranked seventh among public universities, and 27th among all American universities (The Ohio State University, 2019). At the end of FY 2006, the university's endowment passed the $2 billion mark.

In response to state funding continuing to decrease, Ohio State has held three multiyear capital campaigns. The first ended in 1987 and raised $460 million making it the highest fund-raising campaign for a public university. The second campaign concluded in 2000 and raised $1.23 billion, adding Ohio State to a short list of public universities that have raised over

$1 billion during a campaign (The Ohio State University, 2019). The third ended in 2016 and raised over $3 billion with a record of most donors to a higher education campaign. Ohio State is currently in a multiyear campaign celebrating the university's 150th year, with a goal of raising $4.5 billion from one million individual donors (The Ohio State University, 2019).

The institution's Student Philanthropy Department was created to build a world-class student philanthropy framework that focuses on the process of educating students on the cultural and financial effects of altruistic behavior, cultivating a strong understanding of gratitude, and providing opportunities for current students to engage in the behavior of giving back to Ohio State and the community in an effort to support a strong philanthropic culture among our students, past and present.

The Office of Student Life began the process of a university-wide evaluation and audit of university student philanthropy initiatives as well as benchmarking and conducting a feasibility study for creating a Department of Student Philanthropy in April of 2012, and the department was officially established in May of 2016 within the Office of Student Life at The Ohio State University. The audit found that student philanthropic activity was taking place across campus with over 300 registered student organizations classified as activism—or service-based—and student philanthropy initiatives were occurring at the college and department level. However, the philanthropy educational and engagement opportunities were decentralized and competed against one another for student attention and university support. The decentralization of philanthropy education and programs led to students being unable to easily find and become engaged with philanthropic opportunities as well as Ohio State University missing an important opportunity to promote the philanthropic work of its students, faculty, and staff.

The Student Philanthropy Department is charged with engaging the entire campus community in philanthropy while managing multiple student organizations. The department's capacity to expand in areas of opportunity is limited by staffing and available funding. Currently, the department has two full-time staff members: a director and an assistant director. The department also has a graduate administrative assistant. The Student Philanthropy Department programs are largely led and managed by student volunteers. The value in this model is that there are many student leaders involved and learning through the department. The challenge is that there is high turnover in leadership. Depending on the program, students take on new leadership roles annually. It takes time to transition students and help them to learn their responsibilities every year. Often, staff members spend so much time on volunteer management that it is a struggle to dedicate ample resources to strategy and expansion.

Under the auspices of the Department of Student Philanthropy, there has been an expansion of philanthropy education programming and services. The main functions of the department include programming to support philanthropy education, collaborative efforts to integrate philanthropy education across university departments, gratitude-based programs and marketing campaigns, student giving campaigns, and student organization involvement and fund-raising. As of AY 2020–21, more than 12,000 students have been involved in student philanthropy organizations within the Department of Student Philanthropy (The Ohio State University, 2022).

Traditionally, student philanthropy departments have typically existed as functions of Advancement. Ohio State was the first university in the United States to house its Student Philanthropy Department in the Office of Student Life (The Ohio State University, 2022). This placement was strategic in an effort to position student philanthropy initiatives among other

cocurricular programs within the Office of Student Life as well as to more effectively connect students with student philanthropy initiatives. Learning to be global citizens, students are graduating into a world where they will be required to engage globally with cultures and expectations that are likely different from where they grew up. As previously mentioned regarding the university motto, the university wants its students to be able to thrive and create positive social change in the areas where they live and work, which means understanding the value of generosity through time, talent, and treasure.

Although much has been done in the past four years to grow student philanthropy initiatives with the intention of increasing student giving that will lead to increased alumni giving, little data have been gathered to date about whether that goal has been realized. And no data have been gathered to date on the effectiveness of instilling prosocial behavior in which students would interact and invest their time as they become passionate about a cause, thus the motivation behind and purpose for this study.

The Research Questions & Research Design

Using prosocial behavior and student leadership development as relevant theoretical frameworks, this study used a concurrent mixed-methods approach (Creswell, 2014), using QUANT/quant with nested qual, to address the following research questions.

Part 1 of the study consisted of a quantitative analysis using archival data and was designed to address RQ1.

RQ1: Is there a significant relationship between involvement in a cocurricular student philanthropy program and donor or nondonor status of recent alumni at The Ohio State University?

Part 2 included data collected using a survey designed for this study. A mixed-methods approach was employed. The design included a dominant quantitative analysis with a nested qualitative element. The qualitative analysis addressed RQ2, and the qualitative portion addressed RQ3.

RQ2: Are alumni who have participated as leaders in a cocurricular student philanthropy program involved in the nonprofit sector in terms of donating funds and volunteering?

RQ3: Do alumni who have participated as leaders in a cocurricular student philanthropy program believe that this experience enhanced their awareness of social problems and nonprofits, their beliefs about prosocial behavior, and their intentions to donate money to and volunteer for nonprofit organizations?

The approach and design will be more fully described in Chapter III. Briefly, the mixed-methods design makes most sense for this study and the nature of the questions being asked. To address these research questions, this study collected data from one student philanthropy program: BuckeyeThon at The Ohio State University. Created in 1999 and first implemented in 2002, BuckeyeThon is a significant part of The Ohio State Student Philanthropy Education. BuckeyeThon is one of the most well-established dance marathon programs in the country and is one of the largest in terms of the number of students and funds raised. BuckeyeThon's mission is to create a culture of philanthropy, raise funds, and create awareness for the Hematology, Oncology, and the Bone & Marrow Unit at Nationwide Children's Hospital located in Columbus, Ohio (The Ohio State University, 2022). As a program of the Department of Student Philanthropy, BuckeyeThon works to achieve this mission through programs that enhance the student experience, teach and promote the value of philanthropy, establish a spirit of service and prosocial behavior, and cultivate relationships between students, faculty, staff,

alumni, and community members. BuckeyeThon engages over 6,000 students annually in philanthropy (The Ohio State University, 2022). To date, BuckeyeThon has raised more than $11 million dollars for Nationwide Children's Hospital (buckeyethon.osu.edu). The funds come primarily from peer-to-peer fund-raising and a variety of sources, including foundations, corporations, and individuals via students' fund-raising efforts.

This study collected information from Ohio State alumni who had participated in BuckeyeThon (Part 1) and who had participated as leaders in BuckeyeThon (Part 2) from 2002 to 2021. The first question (Part 1) compared giving patterns of recent alumni. The subjects for this study included all bachelor's degree recipients during 2002–2021 from The Ohio State University. Data on these individuals are maintained in the institution's advancement database system, to which the author has access. University records regarding graduates' giving were generated from the advancement database system. SPSS statistical software was used to conduct the analysis. The giving patterns of those who participated in BuckeyeThon were compared with those of alumni who had not participated in the program to determine whether there is a significant difference in giving rates.

The second and third questions (Part 2) involved a survey that included closed-ended questions and open-ended questions to probe more deeply. Alumni who participated as student leaders of BuckeyeThon were surveyed about their views on the value of student philanthropy programs and their reflections on its effect on their prosocial behavior, defined as volunteering and engagement in community organizations. The survey was analyzed to identify the influence of cocurricular philanthropy programs on both alumni giving patterns and longer-term prosocial behavior.

Owning My Perspective

The perspective I offer here is informed not only by the critical review of the literature but also personal and professional experience. I have spent a great deal of time and energy in my career experience working to create a culture of philanthropy at The Ohio State University. For the past six years, I have served as director of student philanthropy for the Office of Student Life. The major theme for me as director of student philanthropy has been striving to build a strong Department of Student Philanthropy with direction and purpose in order to demonstrate that student philanthropy education and a culture of philanthropy are strong, viable, worthwhile contributors to the development of students as future donors and as civically engaged community members.

The Department of Student Philanthropy is a newly established division within the Office of Student Life at The Ohio State University. Prior to the department's creation in May of 2016, I spent a year working with graduate and undergraduate interns benchmarking higher education institutions and their work around student philanthropy. What is unique about Ohio State's department is that it is the first of its kind housed within Student Life instead of advancement. Therefore, this department has the potential of informing other institutions in creating programs around student philanthropy or creating their own departments focusing on student philanthropy. This has sparked my curiosity to understand the best and more effective practices in the field and to explore ways to innovate those practices.

As a higher education advancement professional, I approach student philanthropy with a commitment to a holistic practice. By that I mean, although increased alumni giving as a result of student giving is in and of itself a major success, it is not enough; it is crucial to address that improvements need to be made in the education and accessibility of students giving their time,

talent, and treasure through volunteer opportunities to their communities as engaged citizens, what I refer to as prosocial behavior. This dual focus builds a framework for students in which they interact and invest their time as they become passionate about a cause. As they build this passion, they begin to develop a desire to give financial resources as well.

I believe that student philanthropy education needs a broad view—that is about educating to create a culture of giving time, talent, and treasure. There are many opportunities for students to give of their time and talent while in school, but rarely are there dynamic conversation around giving of treasure as a student or what happens after graduation. It is my belief that beginning this education in conjunction with existing student organizations and cocurricular programming structures will lead to an increased culture of philanthropy and involve student giving in time, talent, and treasure in the future. That is precisely what the author examines through the course of study.

My experience is that engagement in student philanthropy programs and organizations influence the overall growth, learning, and leadership development of the students who are involved. I believe that, in particular, membership in these organizations affects students in profound ways that are less likely to be experienced by other students. I hope to understand through this study more about the ways that student involvement in student philanthropy programs contributes in important ways to students' leadership development.

As a leader in higher education and student affairs administration, I am very interested in student philanthropy education and how we build a culture of philanthropy among our students—not just how students learn to give to their alma mater but how do we teach prosocial behavior so that students become engaged citizens in their communities.

Study Limitations

As with all studies, this study has several limitations. The author took these limitations into consideration when reviewing the literature, methodology, data collection, data analysis, results, and recommendations.

1. The results of the study are specific to The Ohio State University, and although hopefully the results may help inform philanthropy education in higher education, they cannot be assumed to be generalizable to all colleges and universities, particularly those with different types of student populations, and different-sized institutions with different missions.
2. Participation in the study was limited to alumni who received an undergraduate degree from The Ohio State University between 2002 and 2021 and may not necessarily be generalizable to all alumni of Ohio State prior to the creation of BuckeyeThon and the Department of Student Philanthropy at Ohio State.
3. Part of the research design relied on self-reporting of prosocial behavior, and one can expect that this could lead to socially desirable responses that may not be entirely reliable.
4. An important concern may be that the survey was distributed to voluntary participants of BuckeyeThon. As such, individuals who participate are likely to be positively predisposed towards it, which could lead to a bias in their responses.
5. As the Director of the Department of Student Philanthropy, there is a potential lens and bias the author brings to this study. The alumni who received the survey are former students of the author and one can expect that could lead to socially desirable responses, so that may not be entirely reliable.

Chapters

The dissertation is organized into five chapters, followed by references and appendices. This first chapter provided an introduction to the dissertation including a definition of philanthropy, a discussion of the purpose of the study, my interest in the topic of student philanthropy, the importance of the topic, and study limitations.

Chapter II presents a review of relevant literature that informs this study. It begins by defining philanthropy and its role on American higher education. Then the literature review will focus on student philanthropy education and curricular and cocurricular education, and what is known about the design and outcomes is discussed. The other major section of the chapter examines student leadership development and prosocial behavior, which provides the relevant theoretical framework that informs this study. A critical review of this literature specifically looks as well for any connections to philanthropy education and leadership development in this respect.

Chapter III introduces the research design and methods used to gather and analyze data. This chapter discusses the importance of methodological fit and explores the rationale for the mixed-methods approach chosen. This study used a concurrent, mixed-methods (QUANT/quant with nested qual) approach to explore the research questions for this study. Then the chapter discusses the limitations of the study. The last section of the chapter describes protocol for the study and discusses potential ethical issues.

Chapter IV will present the findings of Part 1 and Part 2 data gathering, with the results organized to address the research questions explored in this study.

Chapter V will offer a discussion about the results of the data analysis, revisit the literature reviewed in Chapter II, provide recommendations for future research, and explain

implications for practice and research. The major part of this chapter will be implications for the field in terms of the degree to which student cocurricular philanthropy education influences future giving and prosocial behavior and how institutions might organize cocurricular student philanthropy education programs.

CHAPTER II: REVIEW OF THE LITERATURE

Overview

This study examined the effect of cocurricular student philanthropy engagement on alumni giving and long-term prosocial behavior. Therefore, this chapter reviews the literature on leadership theories and frameworks that are most relevant, the nature of prosocial behavior, student leadership development, philanthropy in higher education, and what role, if any, student philanthropy engagement plays in alumni donating to their alma mater and being their prosocial behavior.

This chapter presents literature on the relevant theoretical frameworks for the study. The chapter then explores the history of philanthropy in American higher education and how it has evolved. The third section reviews literature on student philanthropy education and service learning, specifically the research exploring how undergraduate experience influences alumni involvement and giving. The gap in this literature, as will be demonstrated, is the lack of research regarding the effects of cocurricular student philanthropy education in alumni giving and civic engagement as well as grounding cocurricular student philanthropy education in leadership theories, prosocial behavior, and student development theory.

Review of Relevant Leadership Theories

This section explores three leadership theories that are most relevant to the study of student philanthropy: relational leadership, servant leadership, and transformational leadership. The idea that leadership is a social construction that comes from the connections and interdependencies of members within an organization has become apparent in the study of leadership (Uhl-Bien, 2006), and it connects to student philanthropy education as it relates to creating a culture of prosocial behavior. It will become apparent in the following review that

these three theories provide a framework for cocurricular student philanthropy education and what it hopes to develop in the students.

Relational Leadership

Relational leadership is an important framework for creating and influencing a culture of giving and civic engagement, and it has a direct connection to social identity theory. Uhl-Bien (2006) defined relational leadership as "a social influence process through which emergent coordination and change are constructed and produced" (p. 654), which implies that iterative processes, not persons, are the core of leadership and that leaders are created through the social process of interacting with others in the organization.

Leadership at its core has to do with relationships. "Leadership is always dependent on the context, but the context is established by the relationships we value" (Wheatley, 1992, p. 144). Most leadership in student involvement happens in an interactive context between individuals and among student organization members. Cunliffe and Eriksen (2011) argued that relational leadership requires "a way of engaging with the world in which the leader holds herself/himself as always in relation with, and therefore morally accountable to others; recognizes the inherently polyphonic and heteroglossic nature of life; and engages in relational dialogue" (p. 1425). Cunliffe and Eriksen (2011) identified four main concepts of relational leadership:

- leadership as a way of being in the world
- working out what is meaningful: dialogue and polyphony
- working through differences as a moral responsibility
- knowing from within and practical wisdom

Cunliffe and Eriksen's (2011) relational leadership concepts originated from a social constructionist perspective similar to Uhl-Bien's (2006). These concepts can also be discussed in relation to Komives et al.'s (1998) relational model of student leadership. According to Komives et al. (1998) relational leadership is a process of getting individuals together to accomplish positive change (pp. 68–72). Komives et al. offered that relational leadership involves a focus on five primary components:

- Inclusive: of people and diverse points of view.
- Empowering: of others who are involved.
- Purposeful: means having an individual commitment to a goal or activity. It is also the individual ability to collaborate and find common ground with others to establish a common purpose, vision for a group, or work toward the public.
- Ethical: driven by values and standards of leadership that is "good or moral in nature."
- Process-oriented: how the group goes about being a group, remaining a group, and accomplishing the group's purpose.

In this model, relational leadership is defined as a relational process of people together attempting to accomplish change or make a difference to benefit the common good. Individuals who embrace this philosophy would value being ethical and inclusive. They would acknowledge the diverse talents of group members and trust the process to bring good thinking to the socially responsible changes group members agree they want to work toward. Relationships are the critical to leadership effectiveness. Relational leadership is a useful framework and approach to student philanthropy programs in that it brings people together to accomplish change and make a difference to benefit the common good through prosocial behavior. This will be even more

important in the future and quickly changing world where relationships will be central to effective leadership and engaging in prosocial behavior.

Servant Leadership

Servant leadership has become a common phrase in academia, especially when it comes to the cocurricular education/teaching outside of the classroom work that we do in student affairs. With respect to servant leadership, van Dierendonck and Patterson (2010) stated that servant leadership is demonstrated by empowering and developing people; by expressing humility, authenticity, interpersonal acceptance, and stewardship; and by providing direction. Student affairs professionals are responsible for facilitating the higher education experience for students and providing an environment that supports student development and servant leadership (Kuh, 2009).

Greenleaf (1970) coined the terms *servant leader* and *servant leadership*. He was recommending ideal behaviors for leaders of large profit and nonprofit organizations to assist those leaders in achieving high levels of excellence while supporting the morality of human kind. Greenleaf defined a servant leader as one who begins with a natural desire to serve. He presents the moral test of servant leaders in the form of four questions:

- Do those served grow as persons?
- Do they, while being served, become wiser, freer, more autonomous, more likely themselves to become servants?
- And what is the effect on the least privileged in society?
- Will they benefit or at least not be further deprived?

As student affairs professionals we ask ourselves: Do students grow, graduate, and gain the skills necessary to learn and be critical thinkers and become global citizens?

Student affairs professionals are not only servant leaders; they also make efforts to teach their students to be servant leaders (Kuh, 2009). Through their involvement in organizations, they are also learning to be organizational stewards. In the area of student philanthropy, this effort goes a step further in teaching students the commitment to give back of their time, talent, and treasure. In servant leadership, leaders are encouraged to "place the good of followers over their own self-interest" (Northouse, 2016, p. 226). Northouse (2016) pulled 10 servant leadership characteristics from Greenleaf's (1970) publications to clarify expectations for practitioners (p. 240):

- Listening
- Empathy
- Healing
- Awareness
- Persuasion
- Conceptualization
- Foresight
- Stewardship
- Commitment to the growth of people
- Building community

These characteristics show the complexity of a servant leadership approach. Servant leadership emphasizes altruism and working for the benefit of others, which is a large component of student philanthropy education. Servant leaders care about each other and "to give up control rather than seek control is the goal of servant leadership" (Northouse, 2016, p. 240). Northhouse's list of 10 servant leadership characteristics represents characteristics that are

central to student philanthropy programs because altruism is at the core of student philanthropy and prosocial behavior.

Transformational Leadership

According to Bass (1985), transformational leadership can be defined based on the influence that it has on followers. He suggested that transformational leaders garner trust, respect, and admiration from their followers. Transformational leadership can have a very positive effect on an organization. Groups that are led by transformational leaders have higher levels of performance and satisfaction than groups led by other types of leaders (Bass & Riggio, 2006). Bass and Riggio (2006) explained,

> Transformational leaders … are those who stimulate and inspire followers to both achieve extraordinary outcomes and, in the process, develop their own leadership capacity. Transformational leaders help followers grow and develop into leaders by responding to individual followers' needs by empowering them and by aligning the objectives and goals of the individual followers, the leader, the group, and the larger organization. (p. 3)

Avolio and Yammarino (2002) argue that student philanthropy programs teach students to value the involvement of others. Transformational leadership at the core of student philanthropy appears in the training students as transformational leaders in that it capitalizes on the strengths of others and works to enhance or develop leadership skills of others so that participants develop a leadership style that is participatory, people-centered, and yet purpose driven. Transformational leadership is central to the work of student philanthropy.

Drawing these three leadership theories together provides the basis for a theoretical framework of student philanthropy education. Relational, servant, and transformational leadership theories share some commonalities and stress the importance of characteristics such as being inclusive and purposeful and building community, which are essential to the understanding of student philanthropy programs and the outcome among the alumni. This study shows that

alumni of student philanthropy programs demonstrate these relational, transformative, and servant leadership through their engagement with the university and community.

Review of Relevant Theoretical Frameworks

To explore what influences students and alumni attitudes, beliefs, and behaviors related to prosocial behavior, social responsibility, civic engagement, and making financial contributions to their alma mater, this section provides a review of the relevant theoretical frameworks for the study.

Prosocial Behavior

The values of citizenship have been taught in American higher education through programs in community service including service learning and civic engagement experiences (Morse, 1989; Walton, 2003). Bjorhovde (2002) prescribes that the more a person observed prosocial behaviors, the more likely they will demonstrate their own prosocial behavior. One of the primary interests of this study is to explore the relationship of student philanthropy cocurricular experience on prosocial behavior. Therefore, we must understand prosocial behavior. Drezner's (2010) study indicates that involvement in student philanthropy, both curricular and cocurricular, influence prosocial behaviors in that the participants are not only learning about prosocial behaviors but also participating and observing prosocial behaviors. This is beneficial to higher education institutions because these participants are potential donors to their alma maters. Bentley and Nissan (1996) defined prosocial behavior as a voluntary behavior to benefit others regardless of the motivation. Helping others through volunteering and philanthropy, serving on nonprofit boards, and voting are examples of prosocial behavior (Drezner, 2011). Drezner (2011) stated that prosocial behaviors can be a natural inclination, but they can also be taught through student philanthropy education as well as by modeling the

behaviors of others. If one participates and observes prosocial behavior, they are more likely to be engaged in their community and giving.

Therefore, one can posit that being part of a student philanthropy program that models promoted prosocial engagement will inspire participants to continue to engage in prosocial behavior after the program, such as volunteering with community organizations after graduation.

Student Engagement and Student Leadership Development

Knowledge attainment, career preparation, and education for citizenship are central goals of higher education. Student affairs professionals believe students should develop various core competencies outside of the classroom such as appreciation for diversity, developing relationships, learning to balance individual needs with the needs of others, and developing a moral compass to guide behavioral choices (Baxter Magolda, 2003). With a desire to develop within these competencies, leaders in higher education seek to "focus on learning outcomes and assessment in order to demonstrate student affairs programs and services' valuable contributions to the development of the whole student" (Dungy & Gordon, 2011, p. 74).

Leadership development has long been an goal of higher education (Kelly, 2008). According to Adams and Keim (2000), colleges and universities place great emphasis on creating and implementing programming related to leadership and service. Many higher education institutions offer courses in leadership and service and often list the goal of student leadership development in their mission statements (Adams & Keim, 2000).

Kelly (2008) cited that there is a positive correlation between leadership experience and enhanced leadership skills, values, and civic responsibility. Alumni often attribute their success in their careers to leadership experiences in college (Astin, 1984). The question remaining is whether they recognize the value of those experiences in terms of civic engagement.

Astin's (1984) theory of student involvement defines involvement as the amount of physical and psychological energy that students devote to the educational experience in college. Student engagement as defined by Kuh (2003) is "the time and energy students devote to educationally sound activities inside and outside the classroom and the policies and practices that institutions use to introduce students to take part in these activities" (p. 25). Student engagement or involvement has been identified by researchers as educationally purposeful on-campus and off-campus activities that are highly associated with social and personal development, learning, and satisfaction with the college experience (Carini et al., 2006; Kuh, 2003, 2005, 2006, 2009; Pascarella & Terenzini, 2005; Pike, 2006; Pike & Kuh, 2005; Pike et al., 2003; Umbach & Wawrzynski, 2005).

Students' undergraduate experiences are greatly influenced by their involvement in student organization and the campus environment (Astin, 1984). Astin's (1984) theory of involvement proposed five postulates characterizing involvement:

1. Physical and mental energy is invested in various objects such as activities, including belonging to organizations, and athletics.
2. This involvement must be continual, though differing amounts of energy will be exerted from different students.
3. Involvement has both quantitative and qualitative characteristics, that is, time and seriousness can be determined.
4. There is a direct proportional link between development and learning, to both the quality and quantity of involvement.
5. Effectiveness of any practice or policy, educational in nature, is related to its ability to increase student involvement. (p. 298)

6. In essence, the emphasis of Astin's (1984) theory of involvement is that there needs to be active participation by the student in the learning process when they are students, which informs their connection as alumni.

Tinto (2012) stated, "For four-year colleges and universities, whether public or private, 38% of those who leave will do so in their first year, and 29% in their second year (p. 3). Being an involved student on a college campus and establishing a sense of belonging is an important component that can lead to students' persistence through graduation (Tinto, 2012). Strayhorn (2012) defined a sense of belonging as "students' perceived social support on campus, a feeling or sensation of connectedness, the experience of mattering or feeling cared about, accepted, respected, valued by, and important to a group (e.g., campus community) or others on campus (e.g., faculty, peers)" (p. 3). Kuh et al. (1991) reported that 70% of student learning happens outside of the classroom. They also report that students who are involved are more likely to graduate than are noninvolved students.

Logue et al. (2005) cited that student leaders credit their leadership experiences as "an overwhelmingly positive experience" (p. 405). Some students in the study shared negative aspects of their leadership role such as emotionally charged work, long hours, or feeling pressure; however, most felt fulfilled and described the personal benefits they received through their leadership experience. Logue et al. (2005) stated that overall, the study's results "provide evidence that student leadership was significant, not only in the current participants' perception of the college experience as a whole but also in the resolution of some of the associated development process, such as interpersonal skill development" (p. 406).

The literature on student engagement and student leadership development tells us that alumni report that student leadership and service training positively affects their career success,

but what we do not know and this study explored is whether it influences how they feel about the institution and thus affects their giving back and their engagement in the community.

Philanthropy in American Higher Education

College and university presidents estimate that fund-raising initiatives take up approximately 20% to 35% of their time (Alexander, 2007). As institutions attempt to meet expanding financial needs, presidents are forced to identify new revenue streams to keep up with the growing costs of higher education. Typically, alumni are often asked to give back to their alma mater. National data show a typical 10% participation rate of alumni who give monetary donations to their undergraduate alma mater (Masterson, 2010).

Historically, monetary giving has played an integral role in the development of colleges and universities in America (Fisher & Quehl, 1989). The success of alumni support has varied since its beginnings (Curti & Nash, 1965). According to Fisher and Quehl (1989), the first known organized effort to fundraise for higher education in the United States occurred in 1641 by the Massachusetts Bay Colony to raise money in support of Harvard College. Oxford University, Harvard University, Princeton University, Yale University, Brown University, Columbia University, Rutgers University, University of Pennsylvania, and University of Delaware; The College of William and Mary; and Dartmouth College were originally colonial colleges all of which acquired property, solicited benefactors, and relied on generous donors in their establishment (Rhodes, 1997). Early institutions of higher education faced the same dilemma of raising funds to support their programs as colleges and universities face today.

As early as the 1870s, alumni have been giving to higher education institutions. Alumni have continued to give generously to support higher education. In 2011, private donations from alumni, corporations, foundations, religious organizations, non alumni individuals, and other

organizations provided $28 billion to public and private colleges and universities (Council for Aid to Education, 2011). According to Lara and Johnson (2014), 26% or approximately $7.10 billion of giving to higher education in 2011 came from alumni. Although a significant number, it represented a decline from the previous year. “This suggests that active students do not necessarily become active alums, and that care must be taken in cultivating the spirit of giving rather than just college spirit” (Lara & Johnson, 2014, p. 301).

As far back as the 1990s, colleges and universities have been in a funding crisis (Council for Aid to Education, 1996). It has only gotten worse. Due to decreased state funding in higher education, public colleges and universities that historically identified as “state-supported” began to identify themselves as “state-assisted” or “state-located” (Rhodes, 1997, p. xviii). Rhodes (1997) stated that fund-raising in higher education should be a continuous activity and should have the involvement of four main participants: (1) the president; (2) campus leaders, including the provost, deans, and faculty; (3) the vice president over development and his or her staff; and, (4) a committed group of volunteers including alumni, parents, faculty, students, friends, and trustees (p. xix). According to Lara and Johnson (2014), colleges and universities cannot rely on philanthropic support to fund the bulk of their budgets.

As institutions of higher education face more scrutiny from governing bodies, students, alumni, and the public regarding improving performance, keeping costs and tuition low, and justifying expenses, fund-raising should be considered a factor in meeting these expectations.

Student Philanthropy Education

Curricular Philanthropy Education

Student philanthropy education is becoming more popular on college and university campuses because it has the potential of serving as a stream of revenue, yet the practice is

underresearched (Olberding, 2012). Student philanthropy education is a teaching strategy that was developed about 20 years ago, and its use has been increasing in colleges and universities (Millisor & Olberding, 2009). A culture of giving within the institution can be taught to a new generation by incorporating philanthropy education into higher education (Walton, 2003). Student philanthropy has been defined as "an experiential learning approach that provides students with the opportunity to study social problems and nonprofit organizations, and then make decisions about investing funds" (Olberding, 2009, p. 463).

The landscape of institutional advancement is changing due to the growing emphasis on creating a campus culture of giving (Pucciarelli & Kaplan, 2016). Over the past 15 years, there has been a significant increase in course offerings teaching philanthropy (Damast, 2011; Fuller, 2011; Olberding, 2009). Colleges and universities are creating courses that focus on either philanthropy or adding philanthropy to existing curriculum (Olberding, 2012; Olberding & Downing, 2021).

Institutions are developing new initiatives with the purpose of teaching students to give with the hope they will become a source of sustainable revenue; however, little research exists on how to best create a culture of giving that will truly affect giving patterns of alumni. Applying what is known about alumni giving to student cocurricular programs as an approach seems rational, but it is not that easy because they do not take student development into consideration or the differences between alumni and students. Colleges and universities can take what is known about alumni giving as an approach to what is developed and implemented to create a culture of philanthropy and giving among students.

Student philanthropy is relatively new, and the literature focusing on it is sparse. Olberding, (2012) identified the following goals for student philanthropy:

- Enhance awareness of social problems and nonprofit organizations in the community.
- Increase knowledge of philanthropic processes, particularly grant seeking and grant making.
- Influence attitudes, interest, intentions, and behaviors related to civic engagement and social responsibility.
- Enhance understanding of the academic content of the course by integrating theory and practice.
- Improve critical thinking, communication, leadership, and other work-life skills. (p. 2)

There is some empirical evidence that student philanthropy education has made progress toward these goals. Olberding (2012) studied the philanthropic activity and awareness of alumni who had participated in a philanthropy class as undergraduates, from 1 year to 10 years after their experience with this teaching strategy. Her analysis is defined by five components: participants' awareness, learning, beliefs, intentions, and behaviors related to the nonprofit sector. Her research focused on three research questions:

1. Do alumni of a student philanthropy program believe that this experience enhanced their awareness of social problems and nonprofits, their learning about the subject matter, their beliefs about personal responsibility and self-efficacy, and their intentions to donate money to and volunteer for nonprofit organization?
2. Do alumni of a student philanthropy program believe that this experience enhanced their engagement with the nonprofit sector and their communities through activities such as volunteering, participating actively in a group or association, helping to raise money for a charitable cause, and voting in elections?

3. Are individuals who have participated in student philanthropy more involved in the nonprofit sector than the general population in terms of donating funds, volunteering, and serving on boards or nonprofit organization? (p. 4)

Olberding's (2012) study assessed data from surveys among alumni who had participated in the Mayerson Student Philanthropy Project at Northern Kentucky University between Spring 2000 and Spring 2009. The Mayerson project was implemented in 2000 and is one of the oldest student philanthropy programs in the country. Through this project, student philanthropy has become a teaching strategy in more than 40 courses, with more than 2,000 student participants. A total of 127 alumni participated in the survey (of 1,349 who had been part of the program) of the 430 contacted, for a response rate of 30%, which is considered a good response for a quantitative study (Creswell, 2014). The survey assessed the effects of student philanthropy experience on their awareness, learning, beliefs, and intentions (five scales), effects on their behavior related to the nonprofit sector and their communities (five scales), behaviors of student philanthropy alumni, and open-ended questions.

The mixed-methods survey revealed that the participation rates of those who had participated in the class were significantly higher than were those in the general population (Olberding, 2012). This study investigated a small sample of data from students from a single school who engaged in philanthropy classes. The study focused on students immediately following their experience. It provided evidence that students involved in philanthropy education become philanthropists at relatively high rates, and it was the first to examine the long-term effects of student philanthropy education. This study examined those who participated in cocurricular student philanthropy programs as opposed to traditional philanthropy curriculum and examined the effects on involvement in philanthropy and giving.

Olberding's (2012) study addressed gaps that were identified in previous research by examining the effects of student philanthropy as a teaching strategy. Olberding worked to deliberately include the perspective of alumni from 1 year to 10 years after their experience. Previous studies had only considered the students' perspective immediately after their experience, making this study the first to examine the long-term effects of student philanthropy. Olberding acknowledges throughout the article potential areas for future research and suggests that this study should be seen as the start of a comprehensive research study on the long-term effects of student philanthropy. The author proposes that further research be done to determine the long-term effectiveness of curricular and cocurricular philanthropy education as a strategy for increasing giving and prosocial behavior after graduation.

Although much of Oberding's (2012) study is extremely relevant for this research, there are several significant differences between the two: the current study (a) examined those who participated in cocurricular student philanthropy programs as opposed to traditional philanthropy curriculum and examined the effects on giving and prosocial behavior and (b) addressed the relationship between involvement in a cocurricular student philanthropy program and donor or nondonor status of recent alumni.

Other researchers have explored student philanthropy, examining various disciplines such as nonprofit management, marketing, organizational leadership, public administration, social work, world languages, theater, and criminal justice (Ahmed & Olberding, 2007; Averitt et al., 2015; Benenson & Moldow, 2017; Larson, 2017; Larson & Fieler, 2019; McDonald et al., 2017; McDonald & Olberding, 2011; Olberding, 2009). All of these studies have found that students have increased their awareness of community needs and strengthened their intentions of civic

engagement from the student philanthropy experience. This study seeks to determine whether the same is true for cocurricular philanthropy education.

As this review has shown, we know that participants in curricular student philanthropy education are more likely to give monetary donations to their alma mater and be engaged in prosocial behavior, but little research shows a correlation between cocurricular activity and either alumni giving or prosocial behavior, which is the focus of this study in an effort to fill that gap in the literature.

Service Learning

Another type of philanthropy education is service learning, which is an experiential education strategy. Service learning is similar to student philanthropy in that both integrate academic study and community service to teach civic responsibility. The major difference is that service learning focuses on the "time and talents of participants," whereas student philanthropy involves the "time and talents" of participants as well as "treasure" (Olberding, 2009). Blanchard (2007) stated that service learning became an official curriculum designation through the National and Community Service Act of 1990. This Act included financial support from the federal government to support service learning courses at colleges and universities. Service learning courses offer hands-on service and reflection through traditional academic structures. These courses are noted for their uses of reflection to connect service activities with the societal issues involved in their service (White et al., 2008).

Astin and Sax (1998) cited service learning as positively influencing students' academic success, life skills, and civic engagement. Participants in service learning courses have shown personal and emotional development as well as practical skills. These courses offer a holistic learning environment in addition to the community engagement activities (Eyler & Giles, 1999).

Service learning plays a large part in cocurricular student philanthropy education, specifically when it comes to the integration of community engagement and prosocial behavior.

Cocurricular Philanthropy Education

Walton (2003) states that philanthropy education can be taught through curricular and cocurricular experiences. These philanthropy engagement opportunities are voluntary and provide no academic credit or benefit for participation (Blanchard, 2007). Gordon (2007) stated that cocurricular philanthropic programs can benefit the institution as well as various entities. According to Gordon (2007), nonprofit organizations are collaborating with student organizations to create cocurricular student programs to financially benefit various nonprofits and causes throughout the world.

Drezner (2010) explored cocurricular experiences at Historically Black Colleges and Universities (HBCU). Framed by prosocial behavior theory, Drezner's study focused on how the United Negro College Fund's (UNCF) National Pre-Alumni Council (NPAC), a cocurricular activity, teaches the importance of giving to students and what guides participants' philanthropic behaviors. Drezner focused his study on the following:

1. Does NPAC instill prosocial behaviors in a way that is correct for the students' development stage and age group, using a combination of extrinsic and intrinsic motivations?
2. Does NPAC educate students on being philanthropic and the need for personal and alumni support of the UNCF and Black colleges?
3. Does NPAC acknowledge the African American experience by encouraging service within the surrounding communities and tying their work to messages of racial and community uplift? (pp. 126–147)

This explanatory qualitative case study included interviews, observations, and content analysis. Drezner (2010) completed the data collection using multiple sources including institutional documents, interviews with students and advisors, and observations. The participants were 21 students and four NPAC advisors from 13 institutions. Drezner found that NPAC makes a significant contribution in instilling, cultivating, and encouraging prosocial behavior through is programs. Based on the interview responses, students and alumni understand the benefits of acting in a prosocial way. This study is similar to the Drezner study in that it sought to explore cocurricular philanthropy education and examine long-term effects beyond the undergraduate experience as it relates to giving and prosocial behavior. At the same time, this study differs in that it examined the relationship between involvement in a cocurricular student philanthropy program and donor or nondonor status of recent alumni.

Creating a Culture of Giving

Pray (1981) identified the following reasons for alumni giving:

> (1) those seeking social approval, acceptance, or position of importance by association; (2) those dedicated to the same cause as the institution; (3) those motivated through sympathy or empathy; (4) those with strong feeling of moral obligation; and (5) those desiring to take tax advantages. (pp. 74–75)

Jordan and Quynn (1991) identified seven factors of donor motivation:

1. Philanthropy: Pure and simple. These are people who want to make the world a better place. The donor usually neither expects nor wants attention for the gifts and may decline any form of recognition wanting to be anonymous. There are not many of these types of donors.
2. A legacy of giving: These donors are usually widows or widowers or childless couples.
3. Mutual benefit: Most of these gifts involve a benefit to the donor and the institution.

4. Memorials: Many families and friends establish a scholarship or a garden in memory of a deceased family member, colleague, or friend.
5. Honor the living: Similar to memorials, but made in honor of someone living.
6. Repay a debt: These are usually donors who received scholarships or who feel their success in life is due to their having attended the university.
7. A neon light: This is the donor who is motivated by a major need for recognition. These are the donors who need plaques, signs, name plates, and their name in print and often. (pp. 654–655)

Social identity theory proposes that individuals tend to be involved in activities that match their own identities, and they support causes representing those identities (Mael & Ashforth, 1992). Mael and Ashforth (1992) further argued that alumni giving was directly tied to organizational identification whereby alumni donors had a sense of belonging to an institution and shared in the successes and failures of the institution. Drezner et al. (2020) stated that alumni were motivated to give monetary donations to their alma maters based on a need to strongly identify with their alma maters' histories, cultures, and missions.

McAlexander and Koenig (2001) predicted that establishing a culture of giving and involvement in student philanthropy programs among undergraduate students will create an affinity to the university, instill institutional pride, and pay dividends for fund-raising efforts of the future. Campus involvement provides students with opportunities for leadership development, teaches persistence, and facilitates interactions with peers, and it is associated with higher levels of alumni involvement and giving (Astin, 1993). Studies show that increased student engagement will result in increased alumni giving (Ashcraft, 1995; McNulty, 1977; Sun, 2005; Weerts & Ronca, 2009).

Though empirical studies attribute several factors as motivations for alumni giving, recent case studies have found that the student experience and campus involvement are correlated with factors of alumni giving monetarily. Sun (2005) states that alumni are more likely to donate if they had positive undergraduate experiences and were actively involved as students. “These results indicate that satisfaction is greater among alumni who believed that the university contributed to their education. In other words, if they are satisfied with their previous student experience, they are more inclined to give” (Sun, 2005, p. 61). The experiences students attain and their connections with faculty and staff play a large role in the institution’s ability to gain students’ future support (Sun, 2005).

Besser (2012) cited that undergraduate student engagement in student life activities increases community engagement and prosocial behavior among alumni. Student engagement is shown to have a long-term positive effect on alumni engagement that is beneficial to both the institution and to society in general.

These studies show varied correlations for each set of factors. According to Baldwin (2008), there is not a consensus on what motivates alumni to give. Baade and Sundberg’s (1996) study found that curricular and extracurricular experiences affected alumni giving. Two additional studies found that asking alumni about their student experience followed by asking them to give correlated strongly with alumni giving (Weerts & Ronca, 2009). Ashcraft (1995) conducted a study on the influence of student engagement, examining factors that potentially influence alumni giving such as community service, Greek life participation, and interpersonal relationships. Those who were involved in these types of activities were more likely to give (Ashcraft, 1995).

In conclusion, predominant findings from decades of study of alumni giving show that there are several models of alumni giving. However, there are no long-standing models in the higher education literature. Sun (2005) suggested an alumni-giving model based on literature from Ackerman (1996), Belfield and Beney (2000), Harrison (1995), and Miracle (1977). In his dissertation, Sun (2005) suggested that alumni giving was related to four variables: student experience; alumni experience; alumni motivation; and demographic variables including graduation year, gender, ethnicity, type of degree, residency in or out of start, and membership status. Sun stated that "alumni who were treated favorably as students, who were satisfied with academic experience, and who believe the college education contributed to their career success are more inclined to give as alumni than those with less favorable feelings and beliefs" (p. 2). The current study sought to determine whether the same is true for student experience in cocurricular philanthropy education.

Summary

In summary, although student philanthropy education and programs are growing in popularity, the current review has highlighted that there are very few studies that examine the development and implementation of such programs or their degree of influence on future giving and prosocial behavior. Though empirical studies show that alumni report the student experience as a primary factor in their motivation to give, there is little information on how current college and university students begin thinking about giving. Given this background information, this study explored a subset of alumni who were unique in that they were involved in cocurricular student philanthropy programs. Through student philanthropy education and programs, institutions are teaching students to give to their alma mater with the hope that students will give monetarily once they become alumni.

This literature review demonstrates a gap in the research detailing how cocurricular education of philanthropy might have a direct effect on *alumni giving* and prosocial behavior. This study adds knowledge to the field by taking the research a step further from understanding student philanthropy education to establishing its influence on giving and prosocial behavior.

CHAPTER III: RESEARCH DESIGN AND METHODOLOGY

As cocurricular student philanthropy education and programs grow, so will the need for studies on such programs and their influence on alumni future giving and prosocial behavior. Through student philanthropy education and programs, institutions are teaching students while still in school to give to their time, talent, and treasure, with the hope that they will give monetarily once they become alumni (Olberding, 2009). Olberding (2009) cautions that colleges and universities are more likely to create a culture of giving by creating meaningful ways to involve students through creating awareness, developing gratitude, and cultivating giving. Alumni attribute their student experience as a primary factor in their motivation to give (Markus et al., 1993); however, there is little evidence on the influence of student philanthropy experiences on future giving to campus and community.

This concurrent mixed-methods study examined the influence of cocurricular student philanthropy education on alumni giving and prosocial behavior.

Research Design

The purpose of this concurrent mixed-methods study is to understand the influence of a cocurricular philanthropy program on both alumni giving patterns and longer-term prosocial behavior. Therefore, a concurrent mixed-methods approach (Creswell, 2014) was used for the study that consisted of quantitative procedures using archival data and quantitative procedures with nested qualitative data that were collected by using a survey.

Mixed Methods

This study used a concurrent, mixed-methods QUANT/quant (nested qual) design and therefore examined the long-term effects of cocurricular student philanthropy on alumni and the prosocial behaviors in which they engage. A mixed-methods approach allows researchers to

develop a more comprehensive understanding of a problem by analyzing both quantitative and qualitative data within the same study (Creswell & Plano Clark, 2011). Conducting research is defined as the "structured inquiry trying to answer some question or questions using some appropriate method" (Bentz & Shapiro, 1998, p. 87). In this sense, a determination was made regarding the method or methods most appropriate to explore the questions of this dissertation study. Once a question has been established, the researcher must follow a structured way to go about the process of inquiry in order to find or ground knowledge.

Rationale for Using Mixed Methods

Quantitative and qualitative research methods allow researchers to gain new understanding and add to the knowledge of shared meaning surrounding a topic of interest. The methods used when conducting research depend on the research question in need of exploration or hypothesis in need of testing (McMillan & Wergin, 2010). Using a mixed-methods approach enables multiple data sets to be integrated in different ways, providing a deeper understanding and more informed picture of the research topic than a single method might provide. Mixed methods allow the researcher to gain both depth and breadth by drawing on the strengths of qualitative and quantitative research methods while minimizing the limitations of each (Creswell, 2014). For this study, quantitative data provided breadth for RQ1 and quantitative data with nested qualitative data for RQ2 and RQ3 provided opportunities to go in depth in a previously unexplored area.

Research Questions

This study used a concurrent mixed-methods approach (Creswell, 2014), QUANT/quant with nested qual, to address the following research questions.

Part 1 of the study consisted of a quantitative analysis using archival data and was designed to address:

RQ1: Is there a significant relationship between involvement in a cocurricular student philanthropy program and donor or nondonor status of recent alumni at The Ohio State University?

Part 2 used quantitative data (RQ2) with nested qualitative data (RQ3) using a survey method and was designed to address:

RQ2: Are alumni who have participated as members/leaders in a cocurricular student philanthropy program involved in the nonprofit sector in terms of donating funds and volunteering?

RQ3: In what ways do alumni who have participated as leaders in a cocurricular student philanthropy program believe that this experience enhanced their awareness of social problems and nonprofits, their beliefs about prosocial behavior, and their intentions to donate money to and volunteer for nonprofit organizations?

Part 1: Archival Data to Identify Giving Patterns

Part 1 of the study used archival data to determine whether there is a relationship between undergraduate participation in the cocurricular student philanthropy program BuckeyeThon and donor or nondonor status of recent alumni at The Ohio State University. This was accomplished by examining the following hypotheses.

HO1: There is a significant relationship between donor status (donor/nondonor) and alumni participation in BuckeyeThon (participant/nonparticipant).

HO2: There is a significant difference in donor status based on gender/identity and participation status of alumni from Ohio State University.

HO3: There is a significant difference in donor status based on race/ethnicity and participation/nonparticipation in BuckeyeThon among Ohio State alumni.

HO4: There is a significant difference in donor status based on college of study and participation in BuckeyeThon among alumni from Ohio State University.

HO5: There is a significant relationship between donor status and participation in BuckeyeThon among alumni of Ohio State University.

HO6: There is a significant difference in donor status based on participation in BuckeyeThon and alumni scholarship recipient versus nonrecipient.

HO7: There is a significant difference in total revenue between alumni who participated in BuckeyeThon and nonparticipants.

HO8: There is a significant difference in total number of gifts between alumni who participated in BuckeyeThon and nonparticipants.

HO9: There is a significant relationship between cumulative years of giving and participation in BuckeyeThon.

HO10: There is a significant relationship between donor status and graduation period (graduated before/after 2013).

The primary purpose of Part 1 was to explore the giving patterns of recent alumni. This section covers the approach that was used in Part 1 of the study, including participants, the data collection method, and the data analysis process.

The subjects for this study included all bachelor's degree recipients during 2002–2021 from The Ohio State University, which is approximately 199,241 alumni. The data on these individuals are maintained in the institution's advancement database system. University records regarding graduates' giving were generated from the advancement database system.

SPSS statistical software was used to conduct the analysis. The giving patterns of those who participated in BuckeyeThon, the philanthropy education program, were compared with those of students who had not participated in the program to determine whether there is a significant relationship with respect to donor or nondonor status. The results were analyzed by using descriptive statistics, chi-square tests, logistic regression, linear regression, and Poisson regression analysis using the variables depicted in Table 3.1.

Table 3.1

Part 1: Research Design Matrix

Research Question	Data Source/Instrument	Hypothesis	Independent Variable	Dependent Variable
Is there a significant relationship between involvement in a cocurricular student philanthropy program and donor or nondonor status of recent alumni at The Ohio State University?	Institutional date Statistical Analyses: Two-way frequency distribution Chi-square Institutional date Statistical Analyses: Three-way Frequency distribution Logistic regression Post hoc	HO1. There is a significant relationship between donor status (donor/nondonor) and alumni participation in BuckeyeThon (participant/nonparticipant). HO2. There is a significant relationship in donor and nondonor status between gender/identity of alumni who participated in BuckeyeThon and nonparticipants.	BuckeyeThon participant BuckeyeThon member BuckeyeThon leader BuckeyeThon participant BuckeyeThon member BuckeyeThon leader Gender	Donor status Donor status

Research Question	Data Source/Instrument	Hypothesis	Independent Variable	Dependent Variable
	Institutional date Statistical Analyses: Three-way frequency distribution Logistic regression Post hoc	HO3. There is a significant relationship in donor and nondonor status between race/ethnicity of alumni who participated in BuckeyeThon and nonparticipants.	BuckeyeThon participant BuckeyeThon member BuckeyeThon leader Ethnicity	Donor status
	Institutional date Statistical Analyses: Three-way frequency distribution Logistic regression Post hoc	HO4. There is a significant relationship in donor and nondonor status between college of study of alumni who participated in BuckeyeThon and nonparticipants.	BuckeyeThon participant BuckeyeThon member BuckeyeThon leader College of study	Donor status
	Institutional date Statistical Analyses: Two-way frequency distribution Chi-square Logistic regression Pairwise comparisons	HO5. There is a significant relationship in donor and no-donor status between alumni of an Ohio State activity who participated in BuckeyeThon and nonparticipants.	BuckeyeThon participant BuckeyeThon member BuckeyeThon leader OSU activity: Buck I Serv Participant	Donor status

Research Question	Data Source/Instrument	Hypothesis	Independent Variable	Dependent Variable
			Buckeye Leadership Fellow Fraternity/Sorority SPHINX Senior Class Honorary Student-Alumni Council Undergraduate Student Government	
	Institutional date Statistical Analyses: Three-way frequency distribution Logistic regression Post hoc	HO6. There is a significant relationship in donor and nondonor status between alumni scholarship recipients who participated in BuckeyeThon and nonparticipants.	BuckeyeThon participant BuckeyeThon member BuckeyeThon leader Scholarship recipient	Donor status
	Institutional date Statistical Analyses: Descriptive Linear regression	HO7. There is a significant relationship in total revenue between alumni who participated in BuckeyeThon and nonparticipants.	BuckeyeThon participant BuckeyeThon member BuckeyeThon leader	Total revenue

Research Question	Data Source/Instrument	Hypothesis	Independent Variable	Dependent Variable
	Institutional date Statistical Analyses: Descriptive Mann-Whitney U	HO8. There is a significant relationship in total number of gifts between alumni who participated in BuckeyeThon and nonparticipants.	BuckeyeThon participant BuckeyeThon member BuckeyeThon leader	Total number of gifts
	Institutional date Statistical Analyses: Descriptive Zero-inflated negative binomial Mann-Whitney U	HO9. There is a significant relationship between cumulative years of giving and participation in BuckeyeThon.	BuckeyeThon participant BuckeyeThon member BuckeyeThon leader	Cumulative years of giving
	Institutional date Statistical Analyses: Descriptive Chi-square	HO10. There is a significant relationship between donor status and graduation period (graduate before/after 2013).	BuckeyeThon participant BuckeyeThon member BuckeyeThon leader	Participation year

Part 2: Survey to Identify Prosocial Behavior and Civic Engagement

Part 2 of the study involved collecting data through an online survey instrument. Part 2 used quantitative with nested qualitative and was designed to address

RQ2: Are alumni who have participated as leaders in a cocurricular student philanthropy program involved in the nonprofit sector in terms of donating funds and volunteering?

RQ3: In what ways alumni who have participated as leaders in a cocurricular student philanthropy program believe that this experience enhanced their awareness of social problems and nonprofits, their beliefs about prosocial behavior, and their intentions to donate money to and volunteer for nonprofit organizations?

The questionnaire included a combination of closed and open-ended questions. The closed questions were divided into six areas—demographics (gender identity, race/ethnicity, and sexual orientation), leadership outcomes, sense of belonging, philanthropic behavior and attitudes, philanthropic intent, and definition of philanthropy. The closed-ended questions were analyzed through descriptive statistics and the open-ended questions were assessed for themes. The open-ended questions included:

- How did your involvement in BuckeyeThon influence the way you think about future volunteering and donating?
- What did you enjoy most about volunteering with BuckeyeThon?
- What would you improve about the volunteer experience that might impact your sense of future engagement in your community and donating?

The primary purpose of Part 2 was to identify participants' views on the personal value of student philanthropy programs and their reflections on its effect on their own prosocial behavior, defined as volunteering and engagement in community organizations. This section covers the procedures that were used in Part 2 of the study, including timeline, participants and how they were recruited, the data collection instrument, the data collection method, and the analysis process. Participants were recruited from past student leaders of BuckeyeThon, the Ohio State Dance Marathon Program is a significant part of The Ohio State Student Philanthropy Education efforts. These participants, which totals approximately 509, would have been active leaders

between 2002–2022 and are included in the data set from Part 1. The invitation to participate in this study was sent electronically to the organization's alumni listserv. The estimated time required for Phase 2 was 8 weeks, as reflected in Figure 3.1.

Figure 3.1

Estimated Time for Phase 1

Research Site Selection

To address these research questions, this study collected data from one student philanthropy program: BuckeyeThon at The Ohio State University. Created in 1999 and first implemented in 2002, BuckeyeThon is one of the most well-established dance marathon programs in the country and is one of the largest in terms of the number of students and funds raised. BuckeyeThon's mission is to create a culture of philanthropy, raise funds, and create awareness for the Hematology, Oncology, and Bone & Marrow Unit at Nationwide Children's Hospital located in Columbus, Ohio. As a program of the Department of Student Philanthropy, BuckeyeThon works to achieve this mission through programs, which enhance the student experience, teach and promote the value of philanthropy, establish a spirit of service and prosocial behavior, and cultivate relationships between students, faculty, staff, alumni, and community members. BuckeyeThon engages over 6,000 students annually in philanthropy. To date, BuckeyeThon has raised more than $13 million dollars for Nationwide Children's Hospital. The funds come primarily from peer-to-peer fund-raising and a variety of sources,

including foundations, corporations, and individuals via students' fund-raising efforts (buckeyethon.osu.edu).

This study collected information from Ohio State alumni who had participated in BuckeyeThon (Part 1) and who had participated as leaders in BuckeyeThon (Part 2) from 2002 to 2022.

Survey Research Design

Quantitative research originated largely in psychology and invoked the postpositivist worldview (Creswell, 2014). Strategies of inquiry associated with quantitative research include descriptive, correlational, and comparative studies (Creswell, 2014). Quantitative studies use a broad more extensive approach than do qualitative studies with the goal of throwing the net wide to obtain a large sample size. By having a large sample size, the researcher has the ability to generalize the results across a large group (Greene & Caraceli, 1997).

This study incorporated survey data in Part 2 to assess the effects of the student philanthropy experience on alumni's giving and prosocial behavior. Survey research method gives a description of trends, attitudes, or opinions of a population by looking at a sample of that group. Survey research can be quantitative, qualitative, or mixed methods. Quantitative surveys are used when the researcher is seeking statistical representation of a population. Qualitative surveys enable an opportunity for participants to expound on their own experiences and are ideal when working to gather data that is not easily quantified. Mixed-methods survey research is often used to create a complete picture of a research project. The intent of this research is to generalize from a sample to a population (Fowler, 2014), in this study, from a small group of leaders, to a larger alumni population. According to Creswell (2014) survey research design helps answer three types of questions: descriptive, comparative, and correlational.

This study used a self-administered survey to reach a larger sample and allow for anonymity. The survey included a combination of closed- and open-ended questions and was administered electronically using a web-based survey on Qualtrics. A benefit of electronic surveys is that they are more cost effective and respondents tend to provide higher quality and longer responses to open-ended questions than on other types of surveys (Paolo at al., 2000).

Question/Statement Development

The first step in the design of a research study is carrying out an extensive literature review (Chapter II) and identifying the research questions based on gaps found in the literature (Frankfort-Nachmias & Nachmias, 2008). The researcher needs to have a strong theoretical foundation of the topic and a conceptual framework in order to create a series of hypotheses, concepts, or variables to be tested and measured (Frankfort-Nachmias & Nachmias, 2008).

Once the researcher has identified the theoretical framework, defined the research problem, and defined the research questions, the next step is to decide the overall research design (Nardi, 2014). As mentioned above, a quantitative study can adopt an exploratory or explanatory design. The research design is a plan of action that directs the researcher to answer research questions in a systemic, rigorous manner, and it indicates how the data will be collected, the target population, how participants will be recruited, and how the data collected will be analyzed (Creswell, 2014).

Based on the process outlined above, this research followed this design and the subsequent description is patterned after these steps.

Survey Design

There are several considerations that the researcher must take into account when designing and conducting a survey. The first step is deciding what information is needed and

why, making sure to include all variables integral to the testing of the hypotheses. The researcher must be as specific as possible in terms of the data to be collected. Systematic planning and execution in the process from developing question for the survey to survey construction is critical in order to minimize measurement error (Nardi, 2014).

Much care must go into designing the questions. Nardi (2014) states that questions need to be clear and unambiguous. It is important that questions be written for the appropriate reading level of respondents. Double-barreled questions, those that include two different constructs within the same question, should be avoided. Furthermore, leading terms should be avoided. These are terms that raise issues of social desirability and might result in respondents answering questions in accordance to social norms. It is recommended that the researcher pilot the survey with a group of potential respondents. Administrating a pilot allows the researcher to assess problems with question phrasing, comprehension, instrument length, and format. Pretesting the survey can also minimize measurement error (Nardi, 2014).

In general, there are two types of survey questions: closed-ended questions in which the respondent selects an answer from among a list provided and open-ended questions in which the respondent gives their own answer. When using closed-ended questions, the response choices need to be exhaustive as well as mutually exclusive. Open-ended questions are often used with closed-ended questions, providing respondents with an opportunity for reflection, to explain why they selected a particular answer, and/or to expand on a question (Nardi, 2014). As the study used closed-ended questions for the quantitative portion of the survey and open-ended questions to address the qualitative portion of the survey, it was important to follow the guidance above. When using close-ended questions, the researcher must make a choice on the response type to provide. Nardi (2014) states that the response type is chosen on a case-by-case basis and depends

on the objectives of the research study. Types of close-ended questions include dichotomous questions, which are indicative questions that can be answered either in one of the two ways, “yes” or “no” or “true” or “false,” and multiple choice questions (Nardi, 2014).

This study used a survey instrument (Appendix A), which included a combination of closed-ended questions using a 6-point Likert-type scale to collect quantitative data and open-ended questions to collect qualitative data. This allowed for more precise data with higher reliability and validity.

Survey Instrument

This section will outline the sections of the survey instrument that was used for data collection in Part 2 of the study. The survey instrument developed for this study took into account the following guidelines that Abell et al. (2009) stressed as important to survey design.

- Decisions About Question Placement
    - Is the answer influenced by prior questions?
    - Does question come too early or too late to arouse interest?
    - Does the question receive sufficient attention?
- Opening Questions
    - First impressions are important in survey work.
    - First few questions will determine tone for survey.
    - Start with simple descriptive questions.
- Sensitive Questions
    - Before asking sensitive questions, attempt to build rapport.
    - Have transition sentence between sections.
- Checklist of Considerations

- Start with easy, nonthreatening questions.
- Put more difficult, threatening questions near end.
- Never start with an open-ended question.
- For historical demographics, follow chronological order.
- Ask about one topic at a time.
- When switching topics, use a transition.
- Reduce response set (the tendency of respondent to just keep checking the same response).
- For filter or contingency questions, make a flowchart.

Data Collection Process

The survey instrument was entered into the online survey tool, Qualtrics. The total data collection period was 14 days. The survey was included as part of the proposal process and modifications were then made and subsequently approved by the research committee.

Data Analysis

The survey responses were exported from Qualtrics into Microsoft Excel, cleaned, and imported into SPSS for analysis. Descriptive statistics were run on the close-ended questions and the responses to the open-ended questions were assessed for themes. The results of the analysis are discussed in Chapter IV.

Ethical Considerations

All research that involves human participants needs to consider potential harm and work to minimize harm. Researchers are expected to conduct their empirical research in an ethical manner. For studies involving survey-based research, Frankfort-Nachmias and Nachmias (2008) offer that two important ethical concerns to adhere to when conducting survey research are

confidentiality and informed consent. The participant's right to confidentiality should always be respected and any legal requirements involving data protection adhered to. Respondents need to be fully informed about the purposes of the survey, and their consent to participate in the survey must be obtained and recorded (Frankfort-Nachmias & Nachmias, 2008). Examples of unethical practices in research include involving people in a study without their consent or knowledge; intentionally deceiving participants; withholding information about the nature of the research; or causing participants physical, emotional, and psychological harm. Participants need to be informed of their right to withdraw from the study at any time without negative consequences to themselves or others (Frankfort-Nachmias & Nachmias, 2008).

Additionally, survey-based research needs to disclose fully who sponsored it, who conducted it, the exact wording and sequencing of questions, description of the population and how the sample of the population was selected, and the method place and dates of data collection. An institutional review board will assist in assuring that the interests of participants are protected (Nardi, 2014).

Several steps were taken to ensure participant confidentiality. An introductory email, (Appendix A) was included with the survey that outlined the potential uses of the survey results, as well as steps that were taken to ensure participant anonymity. The results were reported in aggregate so as to protect individual identities.

Study Design Limitations

As with all studies, this study has several limitations. The author took these limitations into consideration when reviewing the literature, methodology, data collection, data analysis, results, and recommendations.

The results of the study are specific to The Ohio State University, and although hopefully the results may help inform philanthropy education in higher education widely, they cannot be assumed to be generalizable to all colleges and universities, particularly those with different types of student populations and different-sized institutions with different missions. Participation in this study was limited to alumni who received an undergraduate degree from The Ohio State University between 2002 and 2021 and may not necessarily be generalizable to all alumni of Ohio State prior to the creation of BuckeyeThon and the Department of Student Philanthropy at Ohio State.

There is always the limitation of self-reporting. This research design relied on self-reporting of prosocial behavior, and one can expect that this method could lead to socially desirable responses so may not be entirely reliable.

An important concern may be that the survey was distributed to voluntary participants of BuckeyeThon. As such, individuals who participate are likely to be positively predisposed towards it, which could lead to a bias in their responses.

As the Director of the Department of Student Philanthropy, there is a potential lens and bias that the author brought to this study. The alumni receiving the survey are former students of the author, and one can expect that this feature could lead to socially desirable responses so may not be entirely reliable.

Summary

Through a concurrent mixed-methods study using archival data and a survey with embedded open-ended questions, this study allowed the researcher to generalize to a larger sample of an alumni population the influence of student philanthropy on giving and prosocial

behaviors. Archival data and survey responses were analyzed using SPSS. Chapter IV presents the findings of this study.

CHAPTER IV: ANALYSIS OF THE DATA

The purpose of conducting this concurrent mixed-methods study was to understand the influence of a cocurricular philanthropy program on both alumni giving patterns and longer-term prosocial behavior. This chapter focuses on the results of this research. The study consisted of quantitative procedures, using archival data of undergraduate alumni who graduated from The Ohio State University between 2002 and 2021 to determine the relationship of BuckeyeThon participation (along with various other variables) to alumni donor status, and quantitative procedures with nested qualitative data that were collected by using a survey. The population for this study included 198,222 individuals of which, 20,800 (10.5%) were undergraduate participants of BuckeyeThon and 177,422 (89.5%) were nonparticipants.

The research questions presented in Chapter III and the hypotheses were used to guide the study. Three research questions were developed to direct the study and 10 corresponding hypotheses were tested to determine whether there is an association between BuckeyeThon participation and alumni donor status. All of the analyses were performed using SPSS and Dedoose software.

Research Questions

This study used a concurrent mixed-methods approach (Creswell, 2014), QUANT/quant with nested qual, to address the following research questions.

Part 1 of the study consisted of a quantitative analysis using archival data and was designed to address:

RQ1: Is there a significant relationship between involvement in a cocurricular student philanthropy program and donor or nondonor status of recent alumni at The Ohio State University?

Part 2 used quantitative data (RQ2) with nested qualitative data (RQ3) using a survey method and was designed to address:

RQ2: Are alumni who have participated as members/leaders in a cocurricular student philanthropy program involved in the nonprofit sector in terms of donating funds and volunteering?

RQ3: In what ways do alumni who have participated as leaders in a cocurricular student philanthropy program believe that this experience enhanced their awareness of social problems and nonprofits, their beliefs about prosocial behavior, and their intentions to donate money to and volunteer for nonprofit organizations?

Part 1: Archival Data to Identify Giving Patterns

Summary of the Study

Part 1 of the study used archival data to determine whether there is a relationship between undergraduate participation in the cocurricular student philanthropy program BuckeyeThon and donor or nondonor status of recent alumni at The Ohio State University. This was accomplished by examining the following hypotheses.

HO1: There is a significant relationship between donor status (donor/nondonor) and alumni participation in BuckeyeThon (participant/nonparticipant).

HO2: There is a significant difference in donor status based on gender/identity and participation status of alumni from Ohio State University.

HO3: There is a significant difference in donor status based on race/ethnicity and participation/nonparticipation in BuckeyeThon among Ohio State alumni.

HO4: There is a significant difference in donor status based on college of study and participation in BuckeyeThon among alumni from Ohio State University.

HO5: There is a significant relationship between donor status and participation in BuckeyeThon among alumni of Ohio State University.

HO6: There is a significant difference in donor status based on participation in BuckeyeThon and alumni scholarship recipient versus nonrecipient.

HO7: There is a significant difference in total revenue between alumni who participated in BuckeyeThon and nonparticipants.

HO8: There is a significant difference in total number of gifts between alumni who participated in BuckeyeThon and nonparticipants.

HO9: There is a significant relationship between cumulative years of giving and participation in BuckeyeThon.

HO10: There is a significant relationship between donor status and graduation period (graduated before/after 2013).

The participants for this study included all bachelor's degree recipients during 2002–2021 from The Ohio State University, totaling 199,365 alumni. It was decided to limit the data to those whose *first* listed degree was earned during these years, as some individuals received multiple degrees and only the later one(s) was achieved during this period. This left 198,222 individuals who were included in the analyses for this study.

Results of the Research

A general overview of the demographic and summary statistics that are relevant to BuckeyeThon membership and participation, donor status, and other variables of interest individually is provided in Table 4.1. Relationships among these variables will be explored in detail in sections with the relevant hypothesis questions. Both the BuckeyeThon participants and nonparticipants included alumni who never made a gift to the university, as demonstrated by the donor (no/yes) row, and 33.2% of these alumni are donors. BuckeyeThon participants accounted for 10.5% of alumni, although only 0.4% were members or leadership. The alumni are very evenly divided with respect to graduation dates before and after 2013.

Table 4.1

Frequency Distributions of Categorical Variables

Variable	Category	Frequency	Percent
BuckeyeThon role (*n* = 198,222)	None	177,422	89.5
	Participant	20,069	10.1
	Leadership/Member	731	0.4
Donor (*n* = 198,222)	No	132,441	66.8
	Yes	65,781	33.2
Gender (*n* = 198,222)	Female	100,419	50.7
	Male	97,527	49.2
	Other	14	0.0
	Unknown	262	0.1
Race/Ethnicity (*n* =198,222)	Asian/Pacific Islander	12,893	6.5
	Black or African American	11,222	5.7
	Hispanic	5,454	2.8
	Native American	582	0.3
	Two or more races	3,846	1.9
	Unknown	22,447	11.3
	White	141,778	71.5
College (*n* = 195,782)	Biological Sciences	3,796	1.9
	Business	28,944	14.6
	College of The Arts	2,876	1.5
	College of The Arts & Sciences	59,886	30.2
	Dentistry	703	0.4

Variable	Category	Frequency	Percent
	Education	1,213	0.6
	Education and Human Ecology	16,376	8.3
	Engineering	24,393	12.3
	Food, Agri & Environmental Sci	13,164	6.6
	Human Ecology	4,001	2.0
	Humanities	7,301	3.7
	JG Schl of Public Policy & Mgt	198	0.1
	John Glenn College of Public Affairs	534	0.3
	Law	1	0.0
	Math & Physical Sciences	1,829	0.9
	Medicine	5,725	2.9
	Nursing	4,338	2.2
	Optometry	2	0.0
	Pharmacy	2,073	1.0
	Public Health	688	0.3
	Social & Behavioral Sciences	17,740	8.9
	Social Work	2,440	1.2
	Veterinary Medicine	1	0.0
Buck I Serv participant (*n* = 198,222)		192,232	97.0
	No		
	Yes	5,990	3.0
Buckeye leadership fellow (*n* = 198,222)		198,059	99.9
	No		
	Yes	163	0.1
Fraternity/sorority (*n* = 198,222)	No	175,977	88.8
	Yes	22,245	11.2
SPHINX Senior Class Honorary (*n* = 198,222)		197,766	99.8
	No		
	Yes	456	0.2
Student-Alumni Council (*n* = 198,222)		197,626	99.7
	No		
	Yes	596	0.3
Undergraduate Student Government (*n* = 198,222)		197,727	99.8
	No		
	Yes	495	0.2
Scholarship recipient (*n* = 198,222)		134,468	67.8
	No		
	Yes	63,754	32.2
Graduation (*n* = 198,222)	Pre-2013	97,897	49.4
	2013 or later	100,325	50.6

Several of the outcome variables other than donor status are continuous variables. This includes total revenue, total number of gifts, and cumulative years of giving. These values are presented using summary statistics in Table 4.2.

Table 4.2

Summary Statistics for Total Revenue, Total Number of Gifts, and Cumulative Years of Giving

Variable	Mean	Median	*SD*	Minimum	Maximum
Total revenue	229.51	0.00	14,905.13	0.00	6,358,720.10
Total number of gifts	3.95	0.00	32.31	0.00	6,292
Cumulative years of giving	1.04	0.00	2.31	0.00	41

RQ1: Is there a significant relationship between involvement in a cocurricular student philanthropy program and donor status of recent alumni at The Ohio State University?

HO1: There is a significant relationship between donor status and participation in Buckeyethon among alumni from Ohio State University.

A chi-square analysis was conducted to determine whether there was a relationship between donor status among alumni who participated in BuckeyeThon and nonparticipants. The chi-square test was significant, Pearson $\chi^2(1) = 3{,}079.51$, $p < .001$. As shown in Table 4.3, a higher percentage of BuckeyeThon participants donated to the university (50.3%) than nonparticipants (31.2%).

Table 4.3

Two-Way Frequency Distribution of BuckeyeThon Participation and Donor Status

BuckeyeThon participation (n = 198,222)	Donor Status		
	No	Yes	Total
No	122,109	55,313	177,422
% within No	68.8	31.2	
Yes	10,332	10,468	208,00
% within Yes	49.7	50.3	

HO2: There is a significant difference in donor status based on gender/identity and participation status of alumni from Ohio State University.

The distribution of gender/identity is shown in Table 4.1. A logistic regression model was used to determine whether there is a significant difference in donor status based on gender/identity and participation in Buckeyethon. The logistic regression test was significant, as shown in Table 4.4.

Table 4.4

Results of Logistic Regression of BuckeyeThon Participation and Gender on Donor Status

Variable	χ^2	df	*p*
BuckeyeThon participation	2,414.641	1	<.001
Gender	24.010	1	<.001
BuckeyeThon participation * gender	11.393	1	<.001

A post hoc test was conducted to explore the significant relationship between donor status and gender/identity. As shown in Table 4.5, the differences between BuckeyeThon participants and nonparticipants by gender were tested separately. The greatest increase for this sample was for females, where the odds of being a donor were multiplied by 2.303 if they were BuckeyeThon participants; for males, the odds of being a donor were multiplied by 2.071 if they were BuckeyeThon participants. There are statistically significant differences between BuckeyeThon participants and nonparticipants for both males and females; the percentage of participants who are donors is higher than that for nonparticipants.

Table 4.5

Comparisons of BuckeyeThon Participants and Nonparticipants Separated by Gender

Gender	BuckeyeThon participation comparison	Mean difference (log odds scale)	Odds ratio	χ^2	df	*p*
Female	Yes–No	0.834	2.303	2,043.066	1	<.001
Male	Yes–No	0.728	2.071	827.385	1	<.001

As shown in Table 4.6, a significantly higher percentage of female participants (51.4%) donated to the university than nonparticipants (31.5%) and a significantly higher percentage of male participants (48.1%) donated to the university than nonparticipants (31%).

Table 4.6

Three-Way Frequency Distribution of Donor Status by BuckeyeThon Participation, Separate for Male and Female

Gender	BuckeyeThon Participation	Donor		Total
		No	Yes	
Female	No	59,244	27,200	86,444
	% within No	68.5	31.5	
	Yes	6,795	7,180	13,975
	% within Yes	48.60	51.4	
Male	No	62,642	28,082	90,724
	% within No	69.0	31.0	
	Yes	3,528	3,275	6,803
	% within Yes	51.9	48.1	

HO3: There is a significant difference in donor status based on race/ethnicity and participation/nonparticipation in BuckeyeThon among Ohio State alumni.

The distribution of race/ethnicity is shown in Table 4.1. A logistic regression model was used to determine whether there is a significant difference in donor status depending on race/ethnicity

and participation in Buckeyethon. The logistic regression test was significant, as shown in Table 4.7.

Table 4.7

Results of Logistic Regression of BuckeyeThon Participation and Race/Ethnicity on Donor Status

Variable	χ^2	df	*p*
BuckeyeThon participation	48.485	1	<.001
Race/ethnicity	252.77	6	<.001
BuckeyeThon participation × race/ethnicity	103.779	6	<.001

A post hoc test was conducted to explore the source of the significance found in the interaction of donor status and race/ethnicity. As shown in Table 4.8, the differences between BuckeyeThon participants and nonparticipants by race/ethnicity were tested separately. The interaction indicates that the change in percentage of donors when participating in BuckeyeThon is not the same for all races/ethnicities. The greatest increase in this sample was for individuals of mixed race, where the odds of being a donor were multiplied by 3.511 when participating in BuckeyeThon; this is followed by the increase for Asian/Pacific Island individuals, where participation in BuckeyeThon increases the odds of being a donor by a factor of 3.3. All odds ratios, with the exception of Native American, are greater than 1, meaning that the odds of being a donor are *higher* when the alumnus/a was a BuckeyeThon participant. All *p* values are statistically significant ($p < 0.001$) for all race/ethnicity groups except for Native American, where $p = 0.591$; there is evidence that participating in BuckeyeThon increases the percentage of donors for all race/ethnicity groups except for Native American. It is important to note that even though the probability of being a donor decreases for Native Americans in this sample who

participated in BuckeyeThon, this is not statistically significant and there is no evidence that this is an underlying trend among Native American alumni.

Table 4.8

Comparisons of BuckeyeThon Participants and Nonparticipants Separated by Race/Ethnicity

Race/Ethnicity	Difference	Mean difference (log odds)	Odds ratio	χ^2	df	*p*
Asian/Pacific Islander	Yes–No	1.194	3.300	435.433	1	<.001
Black or African American	Yes–No	0.732	2.079	84.058	1	<.001
Hispanic	Yes–No	0.904	2.469	127.770	1	<.001
Native American	Yes–No	-0.269	0.764	0.288	1	.591
Two or more races	Yes–No	1.256	3.511	212.247	1	<.001
Unknown	Yes–No	0.809	2.246	116.594	1	<.001
White	Yes–No	0.719	2.052	1,846.987	1	<.001

Table 4.9 shows percentage of alumni who are donors, separated by BuckeyeThon participation within race/ethnicity. Generally speaking, within any given race/ethnicity, the percentage of donors increases given participation in BuckeyeThon. The only exception is for Native American alumni, where donor status *drops* from 37.7% for non-BuckeyeThon participants to 31.6% for participants.

Table 4.9

Three-Way Frequency Distribution of Donor Status by BuckeyeThon Participation, Separated by Race/Ethnicity

Race/ethnicity	BuckeyeThon participation	Donor		
		No	Yes	Total
Asian/Pacific Islander	No	8,798	2,641	11,439
	% within No	76.9	23.1	
	Yes	723	716	1,439
	% within Yes	50.2	49.8	
Black or African American	No	7,807	2,687	10,494
	% within No	74.4	25.6	
	Yes	408	292	700
	% within Yes	58.3	41.7	
Hispanic	No	3,320	1,374	4,694
	% within No	70.7	29.3	
	Yes	369	377	746
	% within Yes	49.5	50.5	
Native American	No	351	212	563
	% within No	62.3	37.7	
	Yes	13	6	19
	% within Yes	68.4	31.6	
White	No	83,079	42,093	125,172
	% within No	66.4	33.6	
	Yes	8,046	8,364	16,410
	% within Yes	49.0	51.0	
Two or more races	No	2,378	748	3,126
	% within No	76.1	23.9	
	Yes	336	371	707
	% within Yes	47.5	52.5	
Unknown	No	16,153	5,527	21,680
	% within No	74.5	25.5	
	Yes	428	329	757
	% within Yes	56.5	43.5	

HO4: There is a significant difference in donor status based on college of study and participation in BuckeyeThon among alumni from Ohio State University.

The distribution of college of study is shown in Table 4.1. A logistic regression model was used to determine whether there is a significant difference in donor status based on college of study and participation in Buckeyethon. Buckeyethon participation and college of study were included as predictors of donor status, as well as an interaction of the two. The interaction will tell us whether the difference in donor percentages between Buckeyethon participants and nonparticipants varies by college of study. The initial attempt to run the model was not successful; because all education Buckeyethon participants were donors, this resulted in a mathematical calculation that cannot be done. Because there are only three participants, very little information is lost here by removing education from the analysis, and it is run again. The overall test for each predictor in the model was significant, as presented in Table 4.10.

Table 4.10

Results of Logistic Regression of BuckeyeThon Participation and College of Study on Donor Status

Variable	χ^2	df	*p*
BuckeyeThon Participation	95.906	1	<.001
College	896.748	18	<.001
BuckeyeThon Participation × College	214.876	18	<.001

To explore the interaction more, a post hoc test was conducted to break down the differences between BuckeyeThon participants and nonparticipants by college as shown in Table 4.11. All odds ratios are greater than one (with the exception of College of the Arts), meaning that the odds of being a donor are *higher* when the alumnus/a was a BuckeyeThon participant. Many *p* values are statistically significant, although not all are statistically significant. There is evidence that participating in BuckeyeThon increases the percentage of donors for the following colleges:

- Biological Sciences
- Business
- College of The Arts & Sciences
- Education and Human Ecology
- Engineering
- Food, Agri & Environmental Sci
- JG Schl of Public Policy & Mgt
- John Glenn College of Public Affairs
- Math & Physical Sciences
- Medicine
- Nursing
- Pharmacy
- Public Health
- Social & Behavioral Sciences
- Social Work

The greatest increase in this sample was for the John Glenn School of Public Policy & Management where the odds of being a donor were multiplied by 7.294 when participating in BuckeyeThon. Note, just because a *p* value is not statistically significant does not mean there is no effect of participation in BuckeyeThon, but it does mean that we do not have evidence to support that from this sample (possibly due to small sample sizes of participants in some of the colleges).

Table 4.11

Comparisons of BuckeyeThon Participants and Nonparticipants Separated by College of Study

College	Difference	Mean difference (log odds)	Odds ratio	χ^2	df	*p*
Biological Sciences	Yes–No	1.206	3.340	4.143	1	.042
Business	Yes–No	0.819	2.268	549.143	1	<.001
College of The Arts	Yes–No	-0.119	0.888	0.019	1	.891
College of The Arts & Sciences	Yes–No	1.189	3.284	2,371.845	1	<.001
Dentistry	Yes–No	0.277	1.319	0.604	1	.437
Education and Human Ecology	Yes–No	0.850	2.340	290.860	1	<.001
Engineering	Yes–No	0.885	2.423	467.831	1	<.001
Food, Agri & Environmental Sci	Yes–No	0.697	2.008	108.094	1	<.001
Human Ecology	Yes–No	1.689	5.414	2.376	1	.123
Humanities	Yes–No	0.349	1.418	0.911	1	.340
JG Schl of Public Policy & Mgt	Yes–No	1.987	7.294	32.985	1	<.001
John Glenn College of Public Affairs	Yes–No	1.640	5.155	71.627	1	<.001
Math & Physical Sciences	Yes–No	1.572	4.816	3.830	1	.050
Medicine	Yes–No	0.731	2.077	120.944	1	<.001
Nursing	Yes–No	0.421	1.523	21.827	1	<.001
Pharmacy	Yes–No	0.784	2.190	36.679	1	<.001
Public Health	Yes–No	1.374	3.951	66.221	1	<.001
Social & Behavioral Sciences	Yes–No	0.897	2.452	13.948	1	<.001
Social Work	Yes–No	1.109	3.031	60.522	1	<.001

Table 4.12 shows percentage of alumni who are donors, separated by BuckeyeThon participation, within college of study. Generally speaking, within any given college of study, the percentage of donors increases among BuckeyeThon participants versus nonparticipants. This is not true only for the College of the Arts, where donor status drops from 36.0% for nonBuckeyeThon participants to 33.3% for participants. However, the number of alumni who are both in the College of the Arts and BuckeyeThon participants is very small, and this difference may not be reflective of an underlying trend (it may be coincidence). The hypothesis was rejected.

Table 4.12

Three-Way Frequency Distribution of Donor Status by BuckeyeThon Participation, Separated by College of Study

College	BuckeyeThon participation	Donor		Total
		No	Yes	
Biological Sciences	No	2,163	1,619	3,782
	% within No	57.2	42.8	
	Yes	4	10	14
	% within Yes	28.6	71.4	
Business	No	16,469	8,619	25,088
	% within No	65.6	34.4	
	Yes	1,763	2,093	3,856
	% within Yes	45.7	54.3	
College of The Arts	No	1,836	1,034	2,870
	% within No	64.0	36.0	
	Yes	4	2	6
	% within Yes	66.7	33.3	
College of The Arts & Sciences	No	40,552	10,981	51,533
	% within No	78.7	21.3	
	Yes	4,421	3,932	8,353
	% within Yes	52.9	47.1	
Dentistry	No	467	200	667
	% within No	70.0	30.0	
	Yes	23	13	36
	% within Yes	63.9	36.1	
Education	No	726	484	1,210
	% within No	60.0	40.0	
	Yes	0	3	3
	% within Yes	0.0	100.0	
Education and Human Ecology	No	10,324	4,190	14,514
	% within No	71.1	28.9	
	Yes	955	907	1862
	% within Yes	51.3	48.7	
Engineering	No	14,810	6,837	21,647
	% within No	68.4	31.6	
	Yes	1,296	1,450	2,746
	% within Yes	47.2	52.8	
Food, Agri & Environmental Sci	No	8,670	3,505	12,175
	% within No	71.2	28.8	

College	BuckeyeThon participation	Donor		Total
		No	Yes	
	Yes	546	443	989
	% within Yes	55.2	44.8	
Human Ecology	No	2,077	1,918	3,995
	% within No	52.0	48.0	
	Yes	1	5	6
	% within Yes	16.7	83.3	
Humanities	No	4,264	3,007	7,271
	% within No	58.6	41.4	
	Yes	15	15	30
	% within Yes	50.0	50.0	
JG Schl of Public Policy & Mgt	No	84	43	127
	% within No	66.1	33.9	
	Yes	15	56	71
	% within Yes	21.1	78.9	
John Glenn College of Public Affairs	No	228	103	331
	% within No	68.9	31.	
	Yes	61	142	203
	% within Yes	30.0	70.0	
Math & Physical Sciences	No	1,054	766	1,820
	% within No	57.9	42.1	
	Yes	2	7	9
	% within Yes	22.2	77.8	
Medicine	No	2,982	1,581	4,563
	% within No	65.4	34.6	
	Yes	553	609	1,162
	% within Yes	47.6	52.4	
Nursing	No	2,023	1,736	3,759
	% within No	53.8	46.2	
	Yes	251	328	579
	% within Yes	43.4	56.6	
Pharmacy	No	1,237	553	1,790
	% within No	69.1	30.9	
	Yes	143	140	283
	% within Yes	50.5	49.5	
Public Health	No	310	87	397
	% within No	78.1	21.9	
	Yes	138	153	291
	% within Yes	47.4	52.6	
Social & Behavioral Sciences	No	10,151	7,513	17,664

College	BuckeyeThon participation	Donor No	Donor Yes	Total
	% within No	57.5	42.5	
	Yes	27	49	76
	% within Yes	35.5	64.5	
Social Work	No	1,681	535	2,216
	% within No	75.9	24.1	
	Yes	114	110	224
	% within Yes	50.9	49.1	

HO5: There is a significant relationship between donor status and participation in BuckeyeThon among alumni of Ohio State University.

There are seven subanalyses presented in this section. The distribution of Ohio State activity is shown in Table 4.1.

1. Members vs. Participants

The first analysis considers only individuals who participated in BuckeyeThon and separates them into "participant" and "member/leader." A chi-square analysis was conducted to determine whether there was a relationship between donor status (donor/nondonor) and BuckeyeThon participation in general versus participating as members/leaders. The chi-square test was significant, as shown in Table 4.13.

Table 4.13

Results of Chi-Square Test of BuckeyeThon Participation and Donor Status

χ^2	df	*p*
229.386	1	<.001

The distribution of donor status by BuckeyeThon role is given in Table 4.14. The percentage of donors for participants is 49.3%, and the percentage of donors for members/leaders is notably larger at 77.8%. There is a statistically significant difference in donor status between

BuckeyeThon participants and members/leaders; members/leaders have a greater percentage of donors.

Table 4.14

Two-Way Frequency Distribution of BuckeyeThon Role and Donor Status

BuckeyeThon role (n = 20,142)		Donor		
		No	Yes	Total
Participant		10,170	9,899	20,069
	% within BuckeyeThon participant	50.7	49.3	
Member/leader		162	569	731
	% within BuckeyeThon member/leader	22.2	77.8	

2. Buck I Serv Participants

This analysis looks at determining whether Buck I Serv participants are different from BuckeyeThon participants and members/leaders. To do this, only alumni who participated in exactly one of these activities (alumni who participated in both are not included, nor are alumni who participated in neither) were examined. Table 4.15 provides the frequency distributions for donors within each activity. The percentage of donors is lowest for Buck I Serv participants (34.3%) and highest for BuckeyeThon members/leaders (75.5%).

Table 4.15

Two-Way Frequency Distribution of Activity (Buck I Serv vs. BuckeyeThon) and Donor Status

Activity (n = 21,624)		Donor		
		No	Yes	Total
Buck I Serv		2,237	1,170	3,407
	% within Buck I Serv	65.7	34.3	
BuckeyeThon participant		9,096	8,546	17,642
	% within BuckeyeThon participant	51.6	48.4	
BuckeyeThon member/leader	Count	141	434	575
	% within BuckeyeThon member/leader	24.5	75.5	

A logistic regression analysis was conducted to determine whether there was a relationship between donor status and type of participation in BucheyeThon: Buck I Serv participants, BuckeyeThon participants, and members/leaders. The logistic regression test was significant, as shown in Table 4.16.

Table 4.16

Results of Logistic Regression of Activity (Buck I Serv vs. BuckeyeThon) on Donor Status

χ^2	df	p
432.43	2	<.001

From Table 4.16, one can conclude that there is a statistically significant difference in donor status between Buck I Serv participants, BuckeyeThon participants, and BuckeyeThon members/leaders. To determine which groups are different, post hoc pairwise comparisons are presented in Table 4.17.

Table 4.17

Pairwise Comparisons of Activity (Buck I Serv vs. BuckeyeThon)

Difference	Mean difference (log odds)	Odds ratio	χ^2	df	*p*
BuckeyeThon member/leader–BuckeyeThon participant	1.187	3.277	146.706	1	<.001
BuckeyeThon member/leader–Buck I Serv	1.772	5.883	295.974	1	<.001
BuckeyeThon participant–Buck I Serv	0.586	1.797	225.770	1	<.001

From the *p* values in Table 4.17, all three comparisons are statistically significant. BuckeyeThon members/leaders have a significantly greater percentage of donors than do participants overall, and both have a significantly greater percentage of donors than Buck I Serv participants do.

3. Buckeye Leadership Fellows

This analysis seeks to determine whether Buckeye Leadership Fellows are different from BuckeyeThon participants and members/leaders. To do this, only individuals who participated in exactly one of these activities (alumni who participated in both are not included, nor are alumni who participated in neither) were examined. Table 4.18 provides the frequency distributions of donors within each activity. The percentage of donors is lowest for BuckeyeThon participants (49.2%) and highest for BuckeyeThon members/leaders (77.7%).

Table 4.18

Two-Way Frequency Distribution of Activity (Buckeye Leadership Fellows vs. BuckeyeThon) and Donor Status

Activity (n=20,251)		Donor		Total
		No	Yes	
Buckeye Leadership fellow		26	31	57
	% within Buckeye leadership fellow	45.6	54.4	
BuckeyeThon participant		10,147	9,820	19,967
	% within BuckeyeThon participant	50.8	49.2	
BuckeyeThon member/leader		162	565	727
	% within BuckeyeThon member/leader	22.3	77.7	

A logistic regression analysis was conducted to determine whether there was a difference in donor status between alumni who were Buckeye Leadership Fellow participants, BuckeyeThon participants, and members/leaders. The logistic regression test was significant, as shown in Table 4.19.

Table 4.19

Results of Logistic Regression of Activity (Buckeye Leadership Fellow vs. BuckeyeThon) on Donor Status

χ^2	df	*p*
242.01	2	<.001

From Table 4.19, one can conclude that there is a statistically significant difference in donor status between Buckeye Leadership Fellows, BuckeyeThon participants, and BuckeyeThon members/leaders. To determine which groups are different, post hoc pairwise comparisons are presented in Table 4.20.

Table 4.20

Pairwise Comparisons of Activity (Buckeye Leadership Fellows vs. BuckeyeThon)

Difference	Mean difference (log odds)	Odds Ratio	χ^2	df	*p*
Buckeye leadership fellow–BuckeyeThon participant	0.209	1.232	0.617	1	.433
Buckeyethon member/leader–Buckeye leadership fellow	1.073	2.924	14.685	1	<.001
BuckeyeThon member/leader–BuckeyeThon participant	1.282	3.604	202.904	1	<.001

From the *p* values in Table 4.20, two of the three comparisons are statistically significant. BuckeyeThon members/leaders have a significantly greater percentage of donors than do both Buckeye Leadership Fellows and BuckeyeThon participants, but there is not a statistically significant difference between Buckeye Leadership Fellows and BuckeyeThon participants.

4. Fraternity/Sorority Members

This analysis seeks to determine whether fraternity/sorority members are different from BuckeyeThon participants and members/leaders. To do this, only individuals who participated in one of these activities (alumni who participated in both are not included, nor are alumni who participated in neither) were examined. Table 4.21 provides the frequency distributions of donors within each classification of activity. The percentage of donors is lowest for fraternity/sorority members (38.1%), and highest for BuckeyeThon members/leaders (77.0%).

Table 4.21

Two-Way Frequency Distribution of Activity (Fraternity/Sorority v. BuckeyeThon) and Donor Status

Activity (n = 28,289)		Donor		Total
		No	Yes	
Fraternity/sorority member		9,202	5,665	14,867
	% within fraternity/sorority member	61.9	38.1	
BuckeyeThon participant		6,654	6,269	12,923
	% within BuckeyeThon participant	51.	48.5	
BuckeyeThon member/leader		115	384	499
	% within BuckeyeThon member/leader	23.0	77.0	

A logistic regression analysis was conducted to determine whether there was a difference in donor status between alumni who were fraternity/sorority members, BuckeyeThon participants, and members/leaders. The logistic regression test was significant, as shown in Table 4.22.

Table 4.22

Results of Logistic Regression of Activity (Fraternity/Sorority Member vs. BuckeyeThon) on Donor Status

χ^2	df	p
541.052	2	<.001

From Table 4.22, one can conclude that there is a statistically significant difference in donor status between fraternity/sorority members, BuckeyeThon participants, and BuckeyeThon members/leaders. To determine which groups are different, post hoc pairwise comparisons are presented in Table 4.23.

Table 4.23

Pairwise Comparisons of Activity (Fraternity/Sorority Member vs. BuckeyeThon)

Difference	Mean difference (log odds)	Odds ratio	χ^2	df	*p*
BuckeyeThon member/leader–BuckeyeThon participant	1.265	3.543	137.194	1	<.001
BuckeyeThon Member/leader–fraternity/sorority member	1.691	5.425	245.154	1	<.001
BuckeyeThon participant–fraternity/sorority member	0.426	1.531	315.063	1	<.001

From the *p* values in Table 4.23, all three comparisons are statistically significant. BuckeyeThon members/leaders have a significantly greater percentage of donors than participants do, and both have a significantly greater percentage of donors than fraternity/sorority members do.

5. SPHINX Senior Class Honorary

This analysis seeks to determine whether SPHINX Senior Class Honorary members are different from BuckeyeThon participants and members/leaders. To do this, only individuals who participated in exactly one of these activities (alumni who participated in both are not included, nor are alumni who participated in neither) were examined. Table 4.24 provides the frequency distributions of donors within each activity. The percentage of donors is lowest for BuckeyeThon participants (49.0%), and highest for SPHINX Senior Class Honorary members (83.1%).

Table 4.24

Two-Way Frequency Distribution of Activity (SPHINX Senior Class Honorary vs. BuckeyeThon) and Donor Status

Activity (n = 20,852)		Donor		
		No	Yes	Total
SPHINX Senior Class Honorary		43	211	254
	% within SPHINX Senior Class Honorary	16.9	83.1	
BuckeyeThon participant		10,143	9,763	19,906
	% within BuckeyeThon participant	51.0	49.0	
BuckeyeThon member/leader		161	531	692
	% within BuckeyeThon member/leader	23.3	76.7	

A logistic regression analysis was conducted to determine whether there was a difference in donor status between alumni who were SPHINX Senior Class Honorary, BuckeyeThon participants, and members/leaders. The logistic regression test was significant, as shown in Table 4.25.

Table 4.25

Results of Logistic Regression of Activity (SPHINX Senior Class Honorary vs. BuckeyeThon) on Donor Status

χ^2	df	p
335.696	2	<.001

From Table 4.25, one can conclude that there is a statistically significant difference in donor status between SPHINX Senior Class Honorary members, BuckeyeThon participants, and

BuckeyeThon members/leaders. To determine which groups are different, post hoc pairwise comparisons are presented in Table 4.26.

Table 4.26

Pairwise Comparisons of Activity (SPHINX Senior Class Honorary vs. BuckeyeThon)

Difference	Mean difference (log odds)	Odds ratio	χ^2	df	*p*
SPHINX Senior Class Honorary–BuckeyeThon member/leader	0.397	1.487	4.366	1	.036
SPHINX Senior Class Honorary–BuckeyeThon participant	1.629	5.099	94.021	1	<.001
BuckeyeThon member/leader–BuckeyeThon participant	1.232	3.428	183.290	1	<.001

From the *p* values in Table 4.26, all three comparisons are statistically significant. SPHINX Senior Class Honorary members have a significantly greater percentage of donors than do both BuckeyeThon members/leaders and participants, and BuckeyeThon members/leaders have a significantly greater percentage of donors than do participants.

6. Student-Alumni Council

This analysis seeks to determine whether Student-Alumni Council members are different from BuckeyeThon participants and members/leaders. To do this, only individuals who participated in exactly one of these activities (alumni who participated in both are not included, nor are alumni who participated in neither) were examined. Table 4.27 provides the frequency

distributions of donors within each activity. The percentage of donors is lowest for BuckeyeThon participants (49.1%) and highest for BuckeyeThon Members/Leaders (78.0%).

Table 4.27

Two-Way Frequency Distribution of Activity (Student Alumni Council vs. BuckeyeThon) and Donor Status

Activity (n = 20,898)		Donor		
		No	Yes	Total
Student-Alumni Council		112	235	347
	% within Student-Alumni Council	32.3	67.7	
BuckeyeThon participant		10,105	9,733	19,838
	% within BuckeyeThon participant	50.9	49.1	
BuckeyeThon member/leader		157	556	713
	% within BuckeyeThon member/leader	22.0	78.0	

A logistic regression analysis was conducted to determine whether there was a difference in donor status between Student-Alumni Council, BuckeyeThon participants, and members/leaders. The logistic regression test was significant, as shown in Table 4.28.

Table 4.28

Results of Logistic Regression of Activity (Student-Alumni Council vs. BuckeyeThon) on Donor Status

χ^2	df	p
287.164	2	<.001

From Table 4.28, one can conclude that there is a statistically significant difference in donor status between Student-Alumni Council members, BuckEyeThon participants, and

BuckeyeThon members/leaders. To determine which groups are different, post hoc pairwise comparisons are presented in Table 4.29.

Table 4.29

Pairwise Comparisons of Activity (Student-Alumni Council vs. BuckeyeThon)

Difference	Mean difference (log odds)	Odds ratio	χ^2	df	*p*
Student Alumni Council–BuckeyeThon participant	0.779	2.179	45.098	1	<.001
BuckeyeThon member/leader–Student Alumni Council	0.523	1.687	12.832	1	<.001
BuckeyeThon member/leader–BuckeyeThon participant	1.302	3.677	204.710	1	<.001

From the *p* values in Table 4.29, all three comparisons are statistically significant. BuckeyeThon members/leaders have a significantly greater percentage of donors than do both Student-Alumni Council members and BuckeyeThon participants, and Student-Alumni Council members have a significantly greater percentage of donors than do BuckeyeThon participants.

7. Undergraduate Student Government

This analysis seeks to determine whether Undergraduate Student Government participants are different from BuckeyeThon participants and members/leaders. To do this, only individuals who participated in exactly one of these activities (alumni who participated in both are not included, nor are alumni who participated in neither) were examined. Table 4.30 provides the frequency distributions of donors within each activity. The percentage of donors is lowest for BuckeyeThon participants (49.2%) and highest for BuckeyeThon Members/Leaders (77.9%).

Table 4.30

Two-Way Frequency Distribution of Activity (Undergraduate Student Government vs. BuckeyeThon) and Donor Status

Activity (n=21,059)		Donor		Total
		No	Yes	
Undergraduate Student Government		122	255	377
	% within Undergraduate Student Government	32.4	67.6	
BuckeyeThon participant		10,151	9,824	19,975
	% within BuckeyeThon participant	50.8	49.2	
BuckeyeThon member/leader		156	551	707
	% within BuckeyeThon member/leader	22.1	77.9	

A logistic regression analysis was conducted to determine whether there was a difference in donor status between Undergraduate Student Government, BuckeyeThon participants, and members/leaders. The logistic regression test was significant, as shown in Table 4.31.

Table 4.31

Results of Logistic Regression of Activity (Undergraduate Student Government v. BuckeyeThon) on Donor Status

χ^2	df	*p*
285.280	2	<.001

From Table 4.31, one can conclude that there is a statistically significant difference in donor status between Undergraduate Student Government participants, BuckeyeThon participants, and BuckeyeThon members/leaders. To determine which groups are different, post hoc pairwise comparisons are presented in Table 4.32.

Table 4.32

Pairwise Comparisons of Activity (Undergraduate Student Government vs. BuckeyeThon)

Difference	Mean difference (log odds)	Odds ratio	χ^2	df	*p*
Undergraduate Student Government–BuckeyeThon participant	0.770	2.160	48.121	1	<.001
BuckeyeThon member/leader–Undergraduate Student Government	0.525	1.690	13.479	1	<.001
BuckeyeThon member/leader–BuckeyeThon participant	1.295	3.651	198.136	1	<.001

From the *p* values in Table 4.32, all three comparisons are statistically significant. BuckeyeThon members/leaders have a significantly greater percentage of donors than do both Undergraduate Student Government participants and BuckeyeThon participants, and Undergraduate Student Government participants have a significantly greater percentage of donors than do BuckeyeThon participants.

Summary for HO5

BuckeyeThon members and leaders have statistically significantly higher donor rates than do nearly every other activity group to which we have compared them. The one exception is SPHINX Senior Class Honorary, which has higher donation rates. BuckeyeThon participant donor rates are not as high as for some other activities; however, these donor rates are significantly higher than for Buck I Serv participants as well as fraternity and sorority members.

HO6: There is a significant difference in donor status based on participation in BuckeyeThon and alumni scholarship recipient versus nonrecipient.

The distribution of scholarship recipients in shown in Table 4.1. Table 4.33 shows a three-way frequency distribution of donor status comparing donors between BuckeyeThon participants and nonparticipants, separated into scholarship recipients and nonrecipients (Note that "participant" now again refers to BuckeyeThon members and leaders as well as people who only participated).

Table 4.33

Three-Way Frequency Distribution of Donor Status by BuckeyeThon Participation, Separate for Scholarship Recipients and Nonrecipients

Scholarship recipient	BuckeyeThon participation		Donor		
			No	Yes	Total
No	No		86,198	36,292	122,490
		% within No	70.4	29.6	
	Yes		6,346	5,632	11,978
		% within Yes	53.0	47.0	
Yes	No		35,911	19,021	54,932
		% within No	65.4	34.6	
	Yes		3,986	4,836	8,822
		% within Yes	45.2	54.8	

From Table 4.33, of the alumni who did not receive scholarships and did not participate in BuckeyeThon, 29.6% are donors; of nonrecipients who did participate in BuckeyeThon, 47.0% are donors. Of the alumni who received scholarships and did not participate in BuckeyeThon, 34.6% are donors; of recipients who did participate in BuckeyeThon, 54.8% are donors. It seems that a greater percentage of scholarship recipients than nonrecipients are donors, so we continue the analysis to determine whether participation in BuckeyeThon has a different effect on these two groups.

To analyze this, a logistic regression model was used. BuckeyeThon participation and scholarship status were used as predictors of donor status as well as an interaction of the two. The overall tests of each predictor in the model are presented in Table 4.34.

Table 4.34

Results of Logistic Regression of BuckeyeThon Participation and Scholarship Status on Donor Status

Variable	χ^2	df	*p*
BuckeyeThon participation	2,695.151	1	<.001
Scholarship recipient	323.317	1	<.001
BuckeyeThon participation × scholarship recipient	7.577	1	.006

In Table 4.34, all three variables (including the interaction) have small *p* values and are considered statistically significant. To explore the interaction more, we break down the differences between BuckeyeThon participants and nonparticipants for those with and without scholarships in Table 4.35 and test each separately using post hoc tests.

Table 4.35

Comparisons of BuckeyeThon Participants and Nonparticipants Separated by Scholarship Status

Scholarship recipient	Difference	Mean difference (log odds)	Odds ratio	χ^2	df	*p*
No	Yes–No	0.746	2.109	1,485.608	1	<.001
Yes	Yes–No	0.829	2.291	1,276.59	1	<.001

In Table 4.35, the difference between BuckeyeThon participants and nonparticipants is presented separately for those with and without scholarships. Both of these odds ratios are greater than one, meaning that the odds of being a donor are *higher* when the alumnus/a was a BuckeyeThon participant regardless of whether they had a scholarship. For those without

scholarships, the odds of being a donor are multiplied by 2.109 when they participated in BuckeyeThon; for recipients, the odds of being a donor are multiplied by 2.291. There are a statistically significant differences between BuckeyeThon participants and nonparticipants for those with and without scholarships; the percentage of participants who are donors is higher than that for nonparticipants. Additionally, the statistically significant interaction indicates that BuckeyeThon participation increases the odds of being a donor *more* for scholarship recipients than it does for nonrecipients.

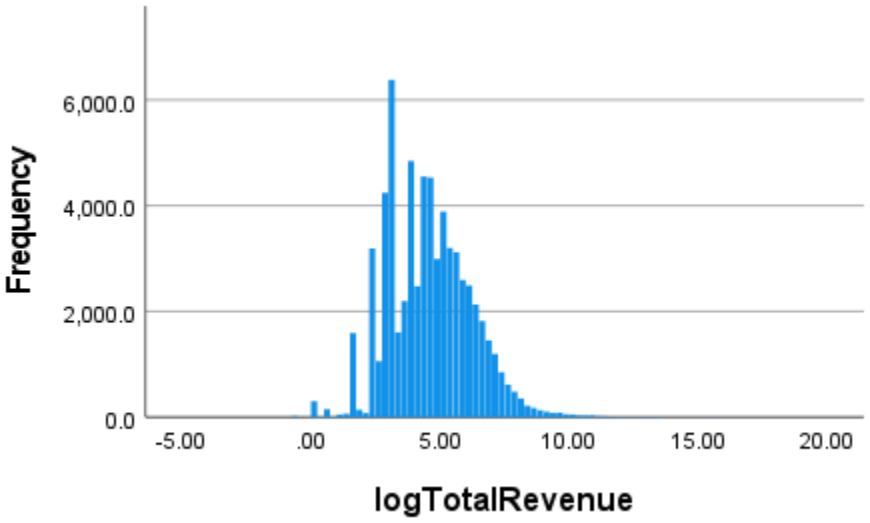
HO7: There is a significant difference in total revenue between alumni who participated in BuckeyeThon and nonparticipants.

HO7 examined the difference between BuckeyeThon participants and nonparticipants with respect to whether they are a donor; this analysis seeks to determine whether average total donation amounts (revenue) among those who have donated are different based on BuckeyeThon participation.

It is already clear that total revenue will be right skewed due to some very large donation amounts; prior to attempting the analysis, the outcome of total revenue was natural log transformed. A variable called “logTotalRevenue” was created where the natural log of each alumni’s total revenue is taken. A histogram for this variable is given in Figure 4.1.

Figure 4.1

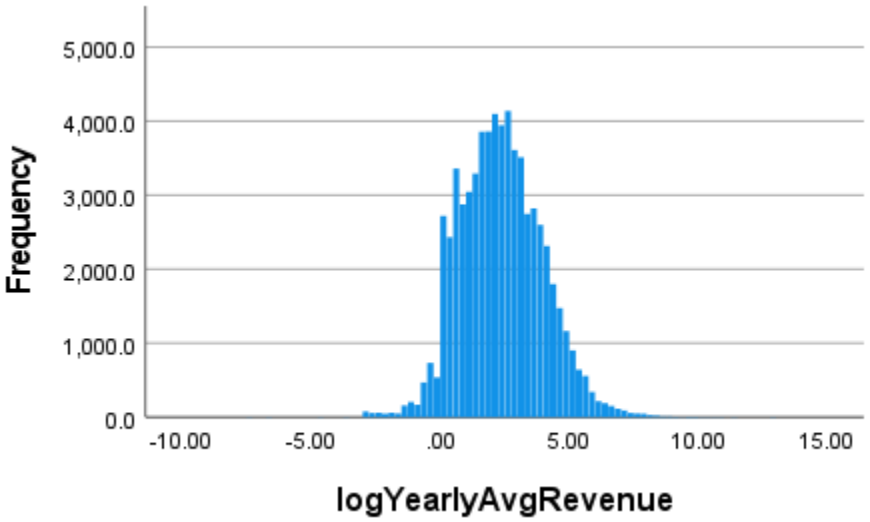
Histogram of logTotalRevenue



From Figure 4.1, the distribution of logTotalRevenue is much less skewed than that for total revenue alone. One obvious influence on total revenue would be years since graduation. Figure 4.2 shows log-transformed average yearly revenue as logYearlyAvgRevenue.

Figure 4.2

Histogram of logYearlyAvgRevenue



A linear regression on logTotalRevenue that includes both BuckeyeThon participation status and years since graduation as predictors in the model was conducted. The results of this model are given in Table 4.36.

Table 4.36

Regression Coefficients for Regression of BuckeyeThon Participation and Years Since Graduation on ln(Total Revenue)

Variable	Coefficient	*SE*	*t*	df	*p*
Intercept	3.601	0.017	210.608	65,726	<.001
BuckeyeThon participation	0.289	0.019	14.906	65,726	<.001
YearsSinceGrad	0.082	0.001	65.344	65,726	<.001
R^2	.068				

Table 4.36 tells us that, based on the data, the best equation for estimating the ln(total revenue) is as follows:

$$\ln(total\ revenue) = 3.601 + 0.289\ (if\ BuckeyeThon\ particiant) + 0.082\ \times\ Years\ Since\ Graduation.$$

Both the effect of BuckeyeThon participation and years since graduation are statistically significant ($p < 0.001$) as tested using *t*-tests of the coefficients. For each additional year since graduation, the ln(total revenue) goes up by 0.082, on average; if an alumnus/a is a BuckeyeThon participant, it increases by 0.289 over whatever it would have been for their given year of graduation.

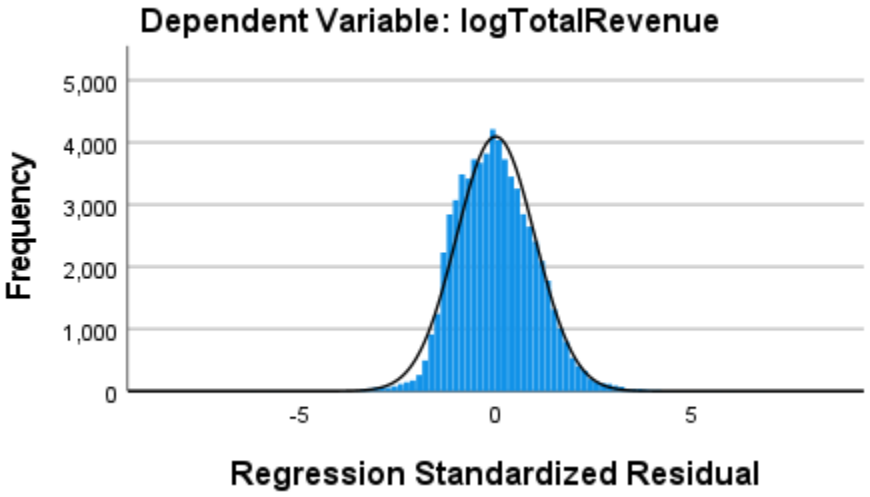
With respect to the hypothesis, after accounting for years since graduation, BuckeyeThon participants, on average, have greater total revenue than do nonparticipants; the average difference in the natural log scale is 0.289.

The R^2 of this model is 0.068, telling us that BuckeyeThon participation and years since graduation together explain 6.8% of the variability in ln(total revenue). This leaves much unexplained, but that is not surprising because there are many other factors that are also likely to predict donation status (including, for example, current income and savings).

One of the assumptions is that the residuals of the model are approximately normally distributed. Figure 4.3 is a histogram of the residuals including an outline of what the histogram would look like if the residuals were perfectly normally distributed.

Figure 4.3

Histogram to Check Normality of ln(Total Revenue) Residuals



Although the residuals in Figure 4.3 do not perfectly meet the outline of the normal distribution, they are very close to it. Given the large sample size, this is a reasonable fit. Additionally, there is an assumption of homogeneity (meaning the residuals have similar variance at all predicted values of the outcomes) and linearity (meaning that the relationship between any numeric predictor(s) and the outcome appear linear). These assumptions were checked by plotting the model residuals against the model predicted values, as shown in the scatter plot in Figure 4.4.

Figure 4.4

Residuals by Predicted Values for ln(Total Revenue) Model

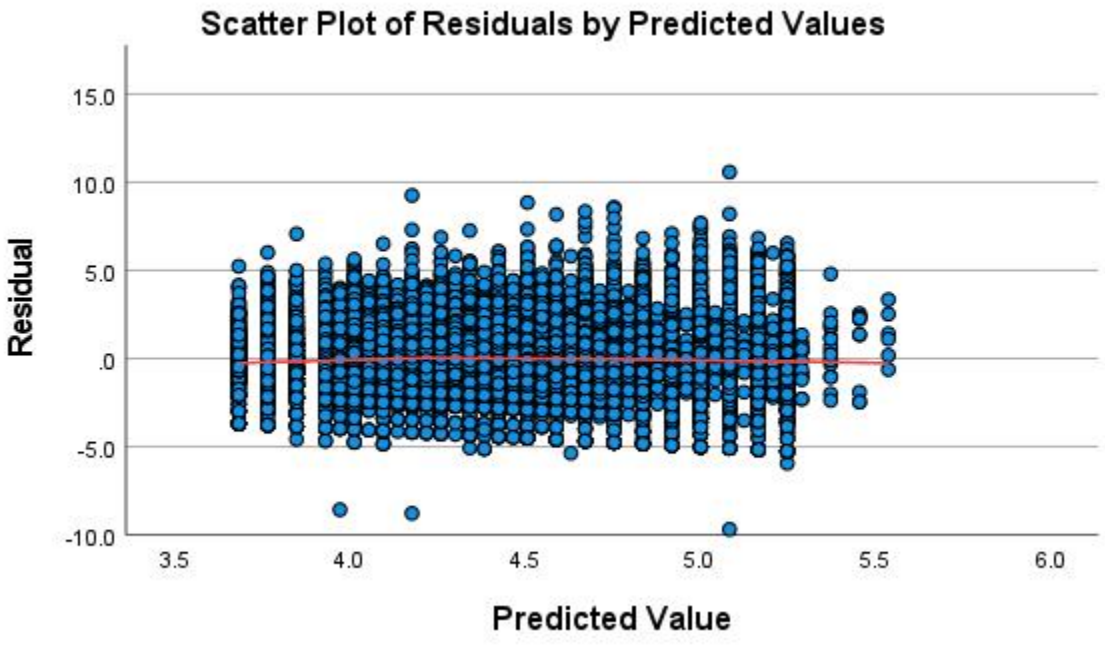


Figure 4.4 shows similar vertical variability of the residuals for all predicted values along the horizontal access. There is no “fan” or “sideways v” shaped pattern showing increasing or decreasing magnitude of residuals as the predicted values grow larger. The distinct vertical “lines” we can see most likely separate BuckeyeThon participants from nonparticipants; there are many more participants, so even though their “lines” appear “longer” (which could mean greater variability) it is likely because there are more observations for these and there are more likely to be some that appear farther from their predicted values. Additionally, the pattern around the zero line (approximated with the red line) is quite linear, indicating there is a linear relationship between the outcome and the predictors.

The outcome of logYearlyAvgRevenue was also examined. The same linear model that includes both BuckeyeThon participation and years since graduation as predictors was used. The results of this model are given in Table 4.37.

Table 4.37

Regression Coefficients and Statistical Tests for Regression of BuckeyeThon Participation and Years Since Graduation on ln(Yearly Average Revenue)

Variable	Coefficient	*SE*	*t*	df	*p*
Intercept	2.689	0.017	155.97	65,726	<.001
BuckeyeThon participation	0.471	0.020	24.106	65,726	<.001
Years since graduation	-0.036	0.001	-28.339	65,726	<.001
R^2	.042				

Table 4.37 tells us that, based on the data, the best equation for estimating the ln(average yearly revenue) is

$$\ln(aveage\ yearly\ revenue) = 2.689 + 0.471\ (if\ BuckeyeThon\ particiant) - 0.036 \times Years\ Since\ Graduation.$$

Both the effect of BuckeyeThon participation and years since graduation are statistically significant ($p < 0.001$) as tested by using *t*-tests of the coefficients. For each additional year since graduation, the ln(average yearly revenue) goes *down* by 0.036, on average; if an alum is a BuckeyeThon participant, it increases by 0.471 over whatever it would have been for their given year of graduation.

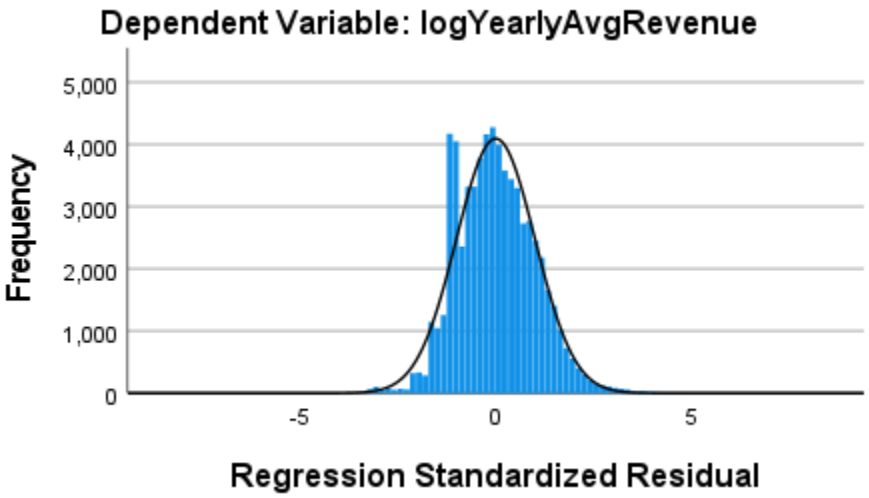
The R^2 for this model is 0.042, telling us that BuckeyeThon participation and years since graduation together explain 4.2% of the variability in ln(total revenue). Compared with the R^2 for the previous model, this is lower; this may make sense in that the effect of years since graduation has been incorporated already into the prediction in a specific way.

Plots of the residual values were checked to determine whether this is a reasonable statistical model. The first assumption was that the residuals of the model are approximately

normally distributed. Figure 4.5 is a histogram of the residuals, including an outline of what the histogram would look like if the residuals were perfectly normally distributed.

Figure 4.5

Histogram to Check Normality of logYearlyAvgRevenue Residuals

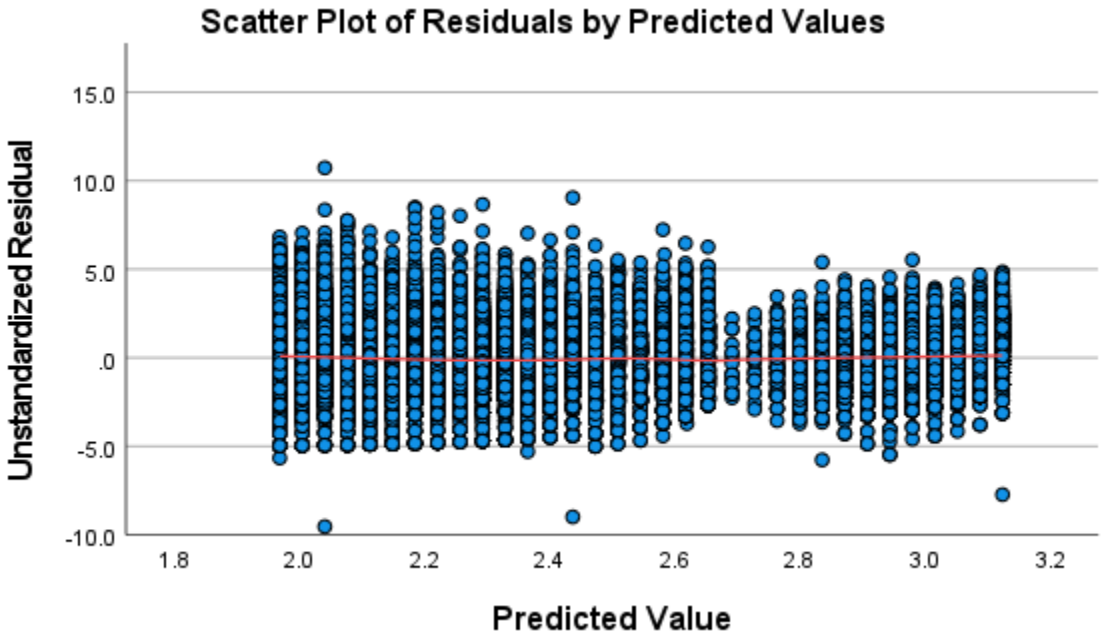


Compared with Figure 4.3, the histogram in Figure 4.5 shows more departure from normality given some values of residuals that appear more often than they would under normality (resulting in the “spikey” bars on the left side of 0).

Additionally, the assumptions of homogeneity and linearity were checked with a scatter plot of model residuals against model predicted values, as shown in Figure 4.6.

Figure 4.6

Residuals by Predicted Values for logYearlyAvgRevenue Model



Although there is no clear pattern to the variability around the zero line and there is no obvious increasing or decreasing magnitude of residuals as the predictive values grow larger, the residual variability shown in Figure 4.6 seems less homogenous than the variability in Figure 4.4. The pattern around the zero line though is quite linear, indicating there is a linear relationship of the outcome to the predictors.

HO8: There is a significant difference in total number of gifts between alumni who participated in BuckeyeThon and nonparticipants.

The total number of gifts, like total revenue, is strongly right skewed. As shown in Table 4.2, the maximum number of gifts from one individual was over 6,000. As a note, the total revenue collected from this person is just under $6,850, meaning that if the number of gifts is correct and not a data error, they have given an average just over $1 on each occasion.

Summary statistics and a nonparametric analysis was conducted. Table 4.38 provides summary statistics for both total number of gifts, and average gifts per year since graduation.

Table 4.38

Summary Statistics for Number of Gifts

Variable	BuckeyeThon participation	*N*	Mean	Median	*SD*	Min	Max
Total number of gifts		177,422	4.06	0	33.933	0	6,292
	No						
	Yes	20,800	3.03	1	11.175	0	427
Average gifts per year		177,422	0.382	0	3.993	0	572
	No						
	Yes	20,800	0.941	0.1	3.016	0	124

From Table 4.38, for total number of gifts, the mean for BuckeyeThon participants is 3.03, whereas the mean for nonparticipants is 4.06. The mean is higher for nonparticipants. However, it is important to note that the median shows opposing information—the median number of gifts for participants is 1 and the median for nonparticipants is 0. This is possible because over 50% of BuckeyeThon participants have given gifts, meaning the median (50th percentile) would be greater than 0, and less than 50% of nonparticipants have given gifts, meaning the median would be 0. However, among those who have given gifts, the numbers for some can be quite high, and this would bring the average up.

Average gifts per year was also reviewed. This also is in contrast to the mean from total number of gifts, as the mean average gifts per year for participants is 0.941—almost 2.5 times the number for nonparticipants, at 0.382. This makes sense if BuckeyeThon participation has increased over time (which it clearly has, as shown in the result for H010 at the end of this chapter) and if donors continue to give gifts over time.

A Mann–Whitney U test was conducted to analyze whether the two groups are similar with respect to number of gifts. Table 4.39 reports the Mann–Whitney U statistics and a standardized *Z* statistics calculated from the *U* statistic.

Table 4.39

Results of Mann–Whitney U tests for Number of Gifts

Variable	*U*	*Z*	*p*
Total number of gifts	2,189,667,925	52.738	<.001
Average gifts per year	2,328,347,808	73.874	<.001

For both, the *p* values in Table 4.39 are significant. To help understand what the results mean, Table 4.40 gives the mean ranks for both variables for both groups.

Table 4.40

Mean Ranks for Mann–Whitney U Test for Number of Gifts

Variable	BuckeyeThon participation	*N*	Mean rank
Total number of gifts	No	177,422	97,169.92
	Yes	20,800	115,673.00
Average gifts per year	No	177,422	96,388.28
	Yes	20,800	122,340.30

Although Table 4.38 shows a higher mean total number of gifts for nonparticipants, the Mann–Whitney U test results in Table 4.40 show higher average ranks for both total number of gifts and average gifts per year for participants. If you were to identify a random BuckeyeThon participant and a random nonparticipant, the BuckeyeThon participant is significantly more likely to have a higher total number of gifts as well as a higher average gifts per year. The

probability that a random BuckeyeThon participant has a larger total number of gifts (or average number of gifts per year) than a random nonparticipant does is significantly greater than 0.5.

HO9: There is a significant relationship between cumulative years of giving and participation in BuckeyeThon.

A STATS ZEROINFL was used to run a zero-inflated negative binomial model. The results of the zero-inflated negative binomial model are given in Table 4.41.

Table 4.41

Results of Zero-Inflated Negative Binomial Model for Cumulative Years of Giving

	Variable	Coefficient	*SE*	*z*	*p*
Count outcome	(Intercept)	-0.556	0.019	-29.949	<.001
	BuckeyeThon participation	0.280	0.018	15.767	<.001
	Years since graduation	0.088	0.001	71.193	<.001
Donor status outcome	(Intercept)	0.731	0.027	27.115	<.001
	BuckeyeThon participation	-12.228	9.196	-1.33	.184
	Years since Graduation	-0.106	0.003	-42.018	<.001

Both BuckeyeThon participation and years since graduation are statistically significant here with $p < 0.001$.

For each additional year since graduation, the average cumulative years of giving (among those who give) is multiplied by $e^{0.088} = 1.323$.

For BuckeyeThon participants versus nonparticipants the average cumulative years of giving (among those who give) is multiplied by $e^{0.280} = 1.092$.

Table 4.42 provides summary statistics for both cumulative years of giving, and average years of giving per years since graduation.

Table 4.42

Summary Statistics for Years of Gifts

Variable	BuckeyeThon participation	*N*	Mean	Median	*SD*	Minimum	Maximum
Cumulative years of giving	No	177,422	1.020	0	2.371	0	41
	Yes	20,800	1.170	1	1.704	0	17
Average years of giving	No	177,422	0.097	0	0.257	0	17
	Yes	20,800	0.383	0.1	0.638	0	7

Table 4.42 shows that the mean and median years of giving are higher for BuckeyeThon participants for both versions of the variable. A Mann–Whitney U was conducted to compare BuckeyeThon participant and nonparticipants. Table 4.43 reports the Mann–Whitney U statistics and a standardized *Z* statistic calculated from the *U* statistic.

Table 4.43

Results of Mann–Whitney U Tests for Years of Giving

Variable	*U*	*Z*	*p*
Cumulative years of giving	1,526,490,383	48.823	<.001
Average years of giving	1,336,051,381	77.849	<.001

For both, the *p* values in Table 4.43 are strongly significant. To help understand what the results mean, Table 4.44 gives the mean ranks for both variables for both groups.

Table 4.44

Mean Ranks for Mann–Whitney U Tests for Years of Giving

Variable	BuckeyeThon participation	*N*	Mean rank
Cumulative years of giving	No	177,422	97,315.23
	Yes	20,800	114,433.54
Average years of giving	No	177,422	96,241.86
	Yes	20,800	123,589.26

The Mann–Whitney U test shows higher average ranks for both total cumulative years of giving and average years of giving per year since graduation for participants. If you were to identify a random BuckeyeThon participant and a random nonparticipant, the BuckeyeThon participant is significantly more likely to have a more cumulative years of giving as well as a higher average years of giving. The probability that a random BuckeyeThon participant has a greater number of years of giving than a random nonparticipant is significantly greater than 0.5.

HO10: There is a significant relationship between donor status and graduation period (graduated before/after 2013).

To begin this analysis, we looked at a two-way frequency distribution of donor status versus year of graduation (before or after 2013) *for BuckeyeThon participants only.* This is Table 4.45.

Table 4.45

Two-Way Frequency Distribution of Graduation (Pre- or Post-2013) and Donor Status for BuckeyeThon Participants

Graduation (n = 20,800)		Donor		
		No	Yes	Total
Pre-2013		426	576	1,002
	% within Pre-2013	42.5	57.5	
2013 or later		9,906	9,892	19,798
	% within 2013 or later	50.0	50.0	

From this table, we can see that 57.5% of pre-2013 graduates who participated in BuckeyeThon are donors, and 50% of post-2013 graduates who participated in BuckeyeThon are donors.

We use a chi-square test to determine whether this difference is statistically significant; the results are given in Table 4.46.

Table 4.46

Results of Chi-Square Test of Graduation (Pre- or Post-2013) and Donor Status for BuckeyeThon Participants

χ^2	df	p
21.577	1	<.001

From Table 4.46 the p value is very small. There is a statistically significant difference in donor status between pre- and post-2013 graduates who participated in BuckeyeThon; those who graduated prior to 2013 had a greater percentage of donors.

When interpreting this result, it is also important to look at how BuckeyeThon participation changed between those two periods. Although the number of alumni who graduated in these two periods is almost equal (review Table 4.1), there is a much smaller number of BuckeyeThon participants prior to 2013. In fact, an analysis of the percentages shows that 1% of alumni who graduated prior to 2013 participated in BuckeyeThon, whereas 19.7% of alumni who graduated in 2013 or later participated in BuckeyeThon. Donor rates are higher for BuckeyeThon participants who graduated when BuckeyeThon was less popular. This is shown in Table 4.47.

Table 4.47

Two-Way Frequency Distribution of Graduation (Pre- or Post-2013) and Donor Status for BuckeyeThon Participants

Graduation		BuckeyeThon participation		
		No	Yes	Total
Pre-2013		97,917	1,002	98,919
	% within Pre-2013	99.0	1.0	100.0
2013 or later		80,528	19,798	100,326
	% within 2013 or later	80.3	19.7	100.0

Table 4.48 shows the type of participation in BuckeyeThon also related to the donor status of the alumni.

Table 4.48

Two-Way Frequency Distribution of BuckeyeThon Role and Donor Status

BuckeyeThon role		Donor		
		No	Yes	Total
Participant		10.170	9.899	20.069
	% within BuckeyeThon participant	50.7	49.3	
Member/leader		162	569	731
	% within BuckeyeThon member/leader	22.2	77.8	

From this table, donor status was lower for participants (49.3%) as opposed to members/leaders (77.8%); a chi square test showed these percentages were significantly different, $\chi^2(1) = 229.386$, $p < .001$. Because of the changing nature of BuckeyeThon before and after 2013, it is possible that the difference between those who graduated before and after is at least partially due to the roles they had as BuckeyeThon participants.

Table 4.49 is a frequency distribution showing the relationship of pre- and post-2013 graduation to the type of participation in BuckeyeThon (for BuckeyeThon participants only).

Table 4.49

Two-Way Frequency Distribution of Graduation (Pre- or Post-2013) and BuckeyeThon Role for BuckeyeThon Participants

Graduation		BuckeyeThon role		Total
		Participant	Leadership/member	
Pre-2013		734	268	1,002
	% within Pre-2013	73.3	26.7	100.0
2013 or later		19,335	463	19,798
	% within 2013 or later	97.7	2.3	100.0

For those who graduated prior to 2013, 26.7% had leadership/member roles; this decreased to just 2.3% after 2013. Table 4.50 is a chi-square test of the difference in BuckeyeThon roles between the two periods. As expected, the difference is highly significant.

Table 4.50

Results of Chi-Square Test of Graduation (Pre- or Post-2013) and Donor Status for BuckeyeThon Participants

χ^2	df	*p*
1,675.597	1	<.001

In order to understand whether the difference in donor status is due to the year of graduation, the type of role in BuckeyeThon, or both, a logistic regression model was used to predict donor status. The model includes both year of graduation and role as well as an interaction of the two. The results of this model are given in Table 4.51.

Table 4.51

Overall Tests of Variables in Logistic Regression Model for Donor Status

Variable	χ^2	df	*p*
Graduation	27.926	1	<.001
BuckeyeThon role	120.721	1	<.001
Graduation × BuckeyeThon role	61.348	1	<.001

From Table 4.51, there is a statistically significant interaction of graduation year and BuckeyeThon role among those who participated in BuckeyeThon. The estimated marginal probabilities of being a donor are given in Table 4.52.

Table 4.52

Estimated Marginal Probability of Donor Status

Graduation	BuckeyeThon role	Probability
Pre-2013	Participant	0.55
	Leadership/member	0.63
2013 or later	Participant	0.49
	Leadership/member	0.86

From Table 4.52, the difference between the participant and the leadership/member role was much bigger following 2013 (49% versus 86%) than prior to 2013 (55% versus 63%). Pairwise comparisons comparing all four of these roles are given in Table 4.53.

Table 4.53

Pairwise Comparisons of Graduation and BuckeyeThon Role for Donor Status

Group 1	Group 2	χ^2	df	*p*
Pre-2013, participant	Pre-2013, leadership/member	4.62	1	.188
Pre-2013, participant	2013 or later, participant	11.26	1	.004
Pre-2013, participant	2013 or later, leadership/member	110.45	1	<.001
Pre-2013, leadership/member	2013 or later, participant	20.21	1	<.001
Pre-2013, leadership/member	2013 or later, leadership/member	50.45	1	<.001
2013 or later, participant	Pre-2013, participant	11.26	1	.004

Note that the *p* values in Table 4.53 are adjusted using the Bonferroni adjustment for multiple comparisons. According to the results in Table 4.53, there is no evidence that there was a statistically significant difference in proportion of donors between participants and leadership/members among those who graduated prior to 2013; all other differences are statistically significant. In other words, the probability of being a donor is related to both year of graduation and role in BuckeyeThon; there was also greater differentiation in the two roles following 2013. Additionally, participants were significantly less likely to donate if they graduated in 2013 or later; those in a leadership/member role were significantly more likely to donate if they graduated in 2013 or later.

Summary of Part 1

Generally speaking, participating in BuckeyeThon (versus not participating) increases the percentage of donors almost across the board. For some smaller groups we cannot demonstrate that, but it never significantly decreases donor percentages. BuckeyeThon participants are also significantly more likely than are nonparticipants to give greater amounts, to give on more occasions, and to have more cumulative years of giving.

Part 2: Survey to Identify Prosocial Behavior and Civic Engagement

Summary of the Study

Part 2 of the study involved collecting data through an online survey instrument. Part 2 used quantitative with nested qualitative and was designed to address the following questions. **RQ2:** Are alumni who have participated as leaders in a cocurricular student philanthropy program involved in the nonprofit sector in terms of donating funds and volunteering? **RQ3:** In what ways alumni who have participated as leaders in a cocurricular student philanthropy program believe that this experience enhanced their awareness of social problems and nonprofits, their beliefs about prosocial behavior, and their intentions to donate money to and volunteer for nonprofit organizations?

The questionnaire included a combination of closed- and open-ended questions. The closed questions were divided into six areas: demographics (gender identity, race/ethnicity, and sexual orientation), leadership outcomes, sense of belonging, philanthropic behavior and attitudes, philanthropic intent, and definition of philanthropy. The closed-ended questions were analyzed through descriptive statistics, and the open-ended questions were assessed for themes. The open-ended questions included the following:

- How did your involvement in BuckeyeThon influence the way you think about future volunteering and donating?
- What did you enjoy most about volunteering with BuckeyeThon?
- What would you improve about the volunteer experience that might impact your sense of future engagement in your community and donating?

The primary purpose of Part 2 was to identify participants' views on the personal value of student philanthropy programs and their reflections on its effect on their own prosocial behavior, defined as volunteering and engagement in community organizations.

Quantitative Results

Participants were recruited from past student leaders of BuckeyeThon; the Ohio State Dance Marathon Program is a significant part of The Ohio State Student Philanthropy Education efforts. These participants, which total 509, would have been active leaders between 2002–2022 and are included in the data set from Part 1. The invitation to participate in this study was sent electronically to the organization's alumni listserv. Table 4.54 provides frequency distributions of the respondents' roles in BuckeyeThon as well as demographic information. Note, a total of 81 respondents completed the survey.

Table 4.54

Frequency Distributions of Demographic Variables

Variable and Category	Frequency	Percent
BuckeyeThon Involvement (*n* = 81)		
BuckeyeThon executive board member	33	40.7
BuckeyeThon general body member	30	37.0
BuckeyeThon leadership team member	18	22.2
Employment (*n* = 81)		
No	3	3.7
Yes	78	96.3
Gender identity (*n* = 81)		
Man	23	28.4
Woman	58	71.6
Race/ethnicity (*n* = 81)		
African American/Black or African descent	1	1.2
Asian American/Asian (East, South, Southeast)	6	7.4
Latinx/Hispanic American	2	2.5
Middle Eastern/Arab American	1	1.2
White or European American	64	79.0
More than one	5	6.2
Prefer not to answer	2	2.5
Sexual orientation (*n* = 81)		
Bisexual	8	9.9
Gay	6	7.4
Straight (heterosexual)	67	82.7
First-generation college student (*n* = 81)		
No	66	81.5
Yes	15	18.5
Out-of-state student (*n* = 81)		
No	64	79.0
Yes	17	21.0
Transfer student (*n* = 81)		
No	80	98.8
Yes	1	1.2
International student (*n* = 81)		
No	81	100.0
Graduation (*n* = 81)		
2012 or earlier	15	18.5
2013 or after	66	81.5

From Table 4.54, there are very similar numbers of executive board members and general body members who responded to the survey (each making up around 40% of the respondents); the number of leadership team members was smaller, at 22.2% of respondents.

Additionally, the respondents demonstrated the following characteristics:

- The great majority of respondents are employed (96.3%).
- The majority (71.6%) of respondents are women.
- The majority (79%) of respondents are White.
- The majority (82.7%) of respondents are straight.
- Only 18.5% of respondents are first-generation college students.
- Only 21% were out-of-state students.
- Only one respondent (1.2%) was a transfer student.
- No international students responded to the survey.
- 81.5% of respondents graduated in 2013 or later.

The remaining sections of the survey ask respondents about their views, intentions, practices, and beliefs.

Results of Involvement with BuckeyeThon (General)

This section included eight items, asking the respondents to answer on a 6-point Likert-type scale from “strongly disagree” to “strongly agree.” Responses have been reduced to “agree” and “disagree” in order to aid interpretation of the results. The items and the percentage of agree/disagree with each statement have been provided in Table 4.55.

Table 4.55

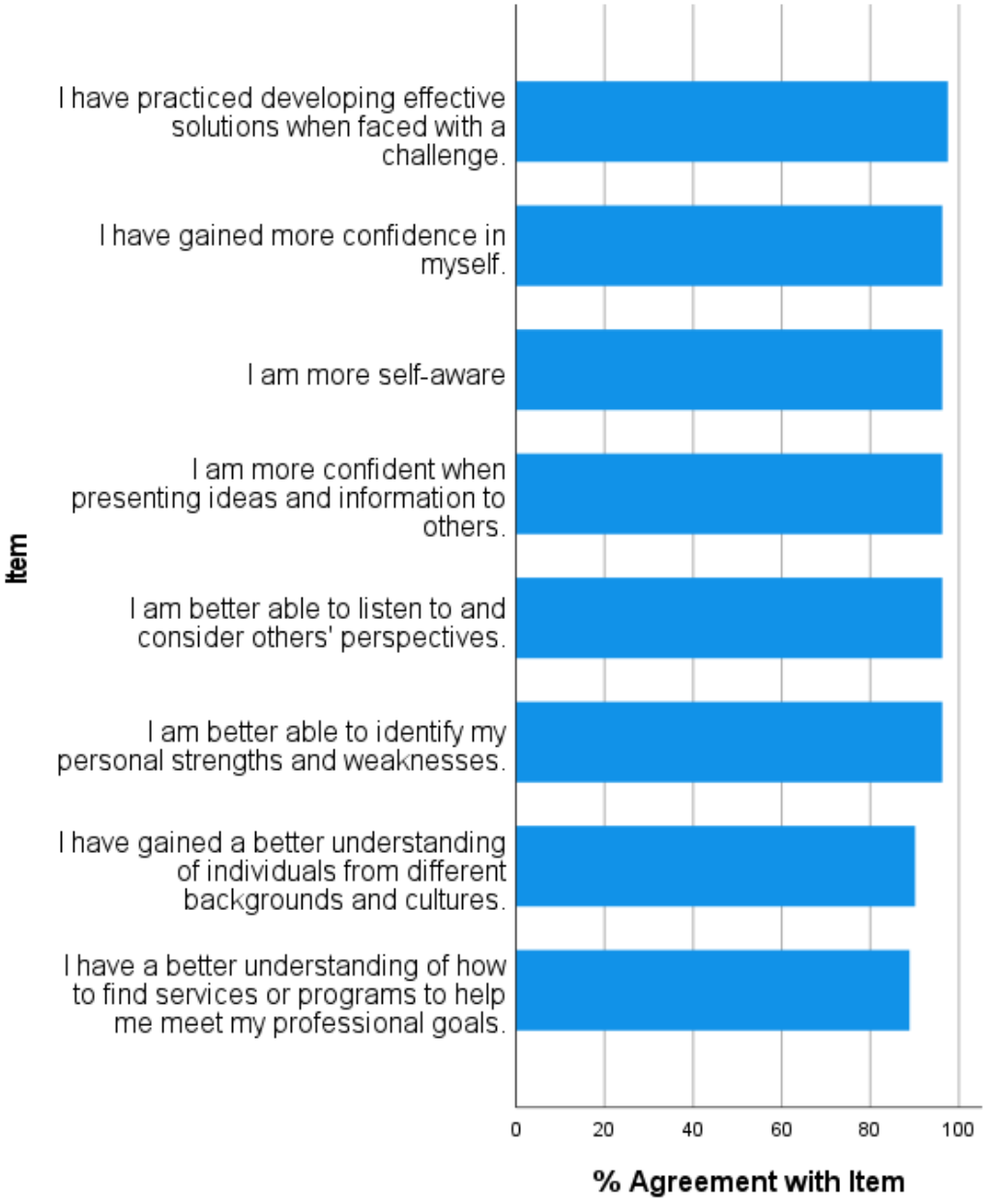
Frequency Distributions of Items Regarding General Results of Involvement with BuckeyeThon

As a result of my involvement with BuckeyeThon	Count		
	Agree	Disagree	Percent agree
I have practiced developing effective solutions when faced with a challenge.	79	2	97.5
I am better able to identify my personal strengths and weaknesses.	78	3	96.3
I am better able to listen to and consider others' perspectives.	78	3	96.3
I am more confident when presenting ideas and information to others.	78	3	96.3
I am more self-aware.	78	3	96.3
I have gained more confidence in myself.	78	3	96.3
I have gained a better understanding of individuals from different backgrounds and cultures.	73	8	90.1
I have a better understanding of how to find services or programs to help me meet my professional goals.	72	9	88.9

In Table 4.55, items have been arranged from those the respondents most agreed with to those they least agreed with. The very highest agreement rate was for “I have practiced developing effective solutions when faced with a challenge,” with a 97.5% agreement rate. However, most of the remaining items had an agreement rate very close to this one, at 96.3%. The only exceptions were “I have gained a better understanding of individuals from different backgrounds and cultures,” which had a 90.1% agreement rate, and “I have a better understanding of how to find services or programs to help me meet my professional goals,” which had an 88.9% agreement rate. Figure 4.7 is a bar chart that shows the percentage of the 81 respondents who agree with each item. These are the same percentages shown in Table 4.55.

Figure 4.7

Bar Chart of Percent of Respondents Agreeing with Each Item Regarding General Results of Involvement with BuckeyeThon



Items Regarding Ohio State

This section included 20 items, asking the respondents to answer on a 6-point Likert scale from “strongly disagree” to “strongly agree.” Responses have been reduced to “agree” and “disagree” in order to aid interpretation of the results. The items and the percentage of agree/disagree with each statement have been provided in Table 4.56.

Table 4.56

Frequency Distributions of Items Regarding Ohio State

Please rate your level of agreement with the following statements.	Count		
	Agree	Disagree	Percent agree
I feel proud to be a graduate of Ohio State.	81	0	100.0
People at Ohio State were friendly to me.	80	1	98.8
Other students at Ohio State liked me the way I am.	79	2	97.5
I could really be myself at Ohio State.	78	3	96.3
I felt like a real part of the Ohio State community.	78	3	96.3
I was treated with as much respect as other students.	78	3	96.3
People at Ohio State knew I could do good work.	78	3	96.3
I was included in lots of activities at Ohio State.	77	4	95.1
The professors at Ohio State respected me.	76	5	93.8
Other students at Ohio State took my opinions seriously.	75	6	92.6
People at Ohio State noticed when I did well at something.	74	7	91.4
There's at least one professor or staff member at Ohio State I was able to talk to if I had a problem.	73	8	90.1
I would give back to Ohio State.	69	12	85.2
I feel a sense of community with other Ohio State alumni.	67	14	82.7
I view Ohio State as a philanthropic organization.	55	26	67.9
Professors at Ohio State were not interested/invested in my success.	18	63	22.2
Sometimes I did not feel as if I belonged at Ohio State.	16	65	19.8
I felt very different from most other students at Ohio State.	9	72	11.1
I wish I attended a school other than Ohio State.	9	72	11.1
It is hard for people like me to be included/accepted at Ohio State.	8	73	9.9

From Table 4.56, we can see that respondents tended to agree with positively worded items regarding Ohio State and tended to disagree with negatively worded items regarding Ohio State.

The most agreed with item was “I feel proud to be a graduate of Ohio State”; 100% of respondents agreed with this statement.

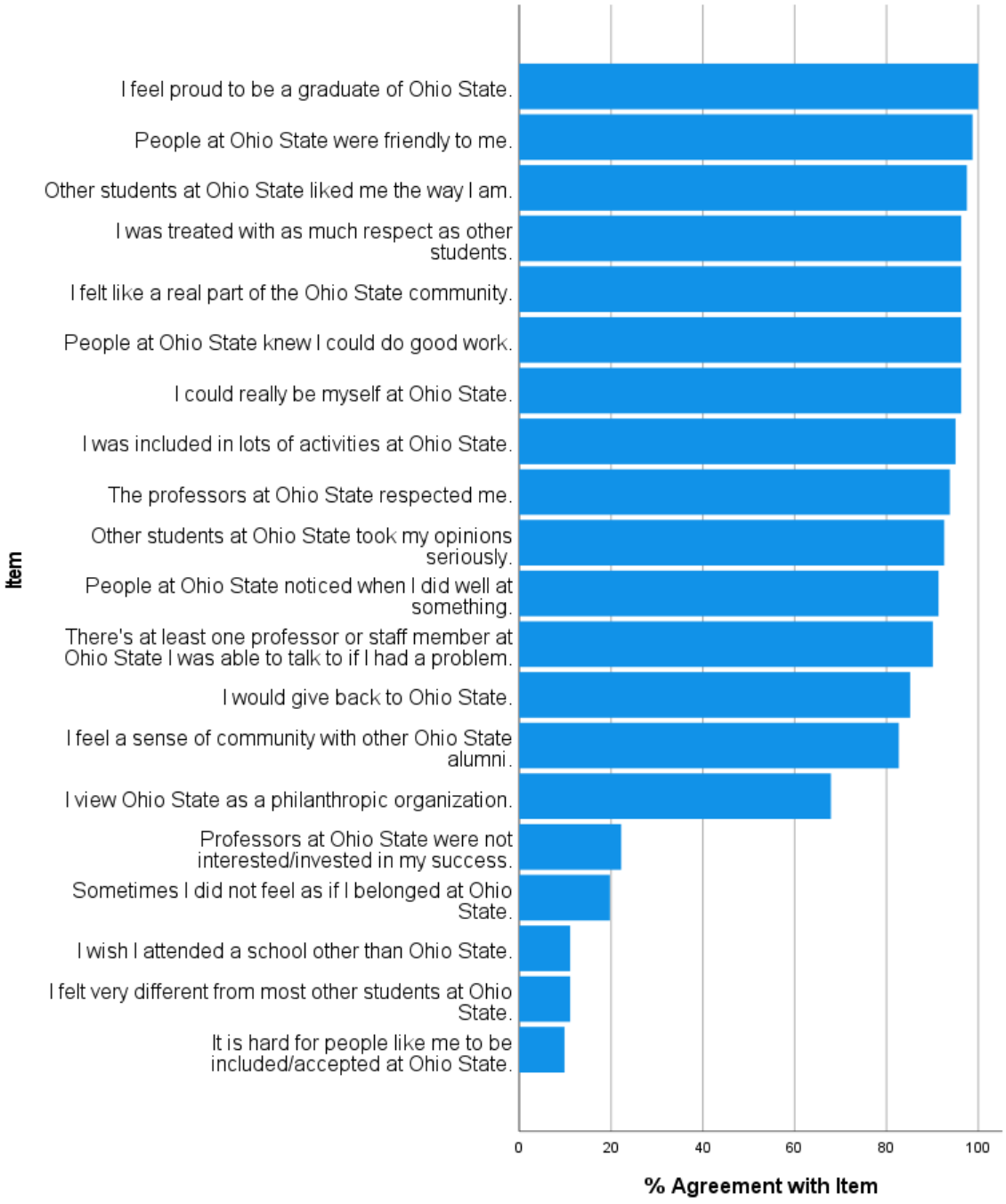
The least agreed with item overall was “It is hard for people like me to be included/accepted at Ohio State,” with only 9.9% agreement.

The most agreed with negatively worded item was “Sometimes I did not feel as if I belonged at Ohio State,” with 19.8% agreement.

The least agreed with item that the majority of respondents still agreed with was “I view Ohio State as a philanthropic organization,” with 67.9% agreement; it is not clear that this is a positively worded item, and it may have been considered more neutral by respondents. Figure 4.8 is a bar chart that shows the percentage of the 81 respondents who agree with each item. These are the same percentages shown in Table 4.56.

Figure 4.8

Bar Chart of Percent of Respondents Agreeing with Each Item Regarding Ohio State



Results of Involvement with BuckeyeThon (Philanthropy)

This section included seven items, asking the respondents to answer on a 6-point Likert-type scale from "strongly disagree" to "strongly agree." Responses have been reduced to "agree" and "disagree" to aid interpretation of the results. The items and the percentage agree/disagree with each statement have been provided in Table 4.57.

Table 4.57

Frequency Distributions of Items Regarding Philanthropic Results of Involvement with BuckeyeThon

My involvement with BuckeyeThon	Count		
	Agree	Disagree	Percent agree
Allowed me to gain new perspective on the importance of serving others.	79	2	97.5
I am able to define what philanthropy means to me.	79	2	97.5
I can make a difference in the world by volunteering my time to a charity or nonprofit.	79	2	97.5
I believe a donation of $5 can make a difference to a charity or nonprofit organization.	77	4	95.1
I can make a difference in the world by donating money to a charity or nonprofit organization.	77	4	95.1
I received enough training to be an effective volunteer for my community.	77	4	95.1
I received enough training to be an effective volunteer for Ohio State.	74	7	91.4

From Table 4.57, there were several items tied for most agreement. These were "Allowed me to gain new perspective on the importance of serving others," "I am able to define what philanthropy means to me," and "I can make a difference in the world by volunteering my time to a charity or nonprofit." In total, 97.5% of respondents agreed with each of these items. The least agreed with item was "I received enough training to be an effective volunteer for Ohio

State," with 91.4% agreement. Note that over 90% of respondents agreed with each of the 7 items.

Figure 4.9 is a bar chart that shows the percent of the 81 respondents who agree with each item. These are the same percentages shown in Table 4.57.

Figure 4.9

Bar Chart of Percent of Respondents Agreeing with Each Item Regarding Philanthropic Results of Involvement with BuckeyeThon

Philanthropic Practices of Respondents

There was one item that asked respondents what philanthropic activities they had participated in during the previous year. Respondents could select and (or all) of 10 philanthropic

activities. Table 4.58 provides the frequency distribution of those who reported having participated in each of the activities.

Table 4.58

Frequency Distributions of Respondent Participation in Philanthropic Activities

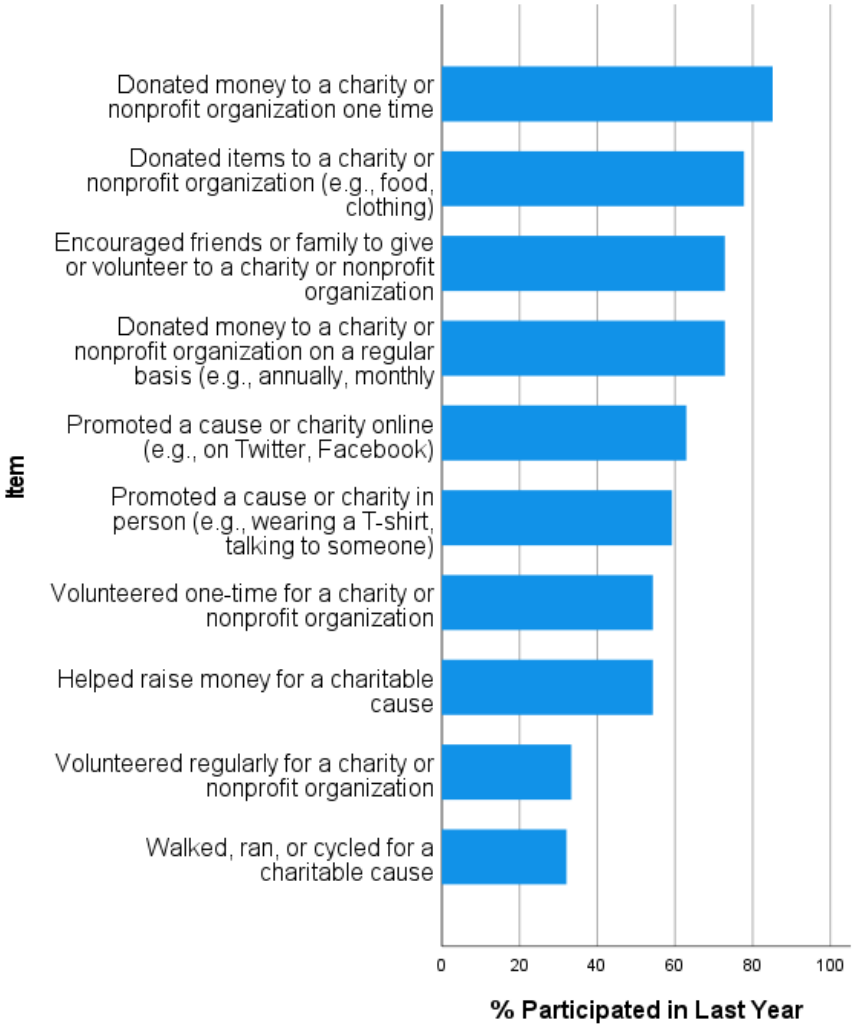
Which of the following do you or have you participated in during the last year?	Count		
	Yes	No	Percent yes
Donated money to a charity or nonprofit organization one time	69	12	85.2
Donated items to a charity or nonprofit organization (e.g., food, clothing)	63	18	77.8
Donated money to a charity or nonprofit organization on a regular basis (e.g., annually, monthly	59	22	72.8
Encouraged friends or family to give or volunteer to a charity or nonprofit organization	59	22	72.8
Promoted a cause or charity online (e.g., on Twitter, Facebook)	51	30	63.0
Promoted a cause or charity in person (e.g., wearing a T-shirt, talking to someone)	48	33	59.3
Helped raise money for a charitable cause	44	37	54.3
Volunteered one time for a charity or nonprofit organization	44	37	54.3
Volunteered regularly for a charity or nonprofit organization	27	54	33.3
Walked, ran, or cycled for a charitable cause	26	55	32.1

From Table 4.58, the activity that the most respondents participated in was “Donated money to a charity or nonprofit organization one time,” with 85.2%. The activity with the next highest participation was “Donated items to a charity or nonprofit organization (e.g., food clothing),” with 77.8%.

The activity that the fewest respondents participated in was “Walked, ran, or cycled for a charitable cause,” selected by 32.1% of respondents. This was followed closely by “Volunteered regularly for a charity or nonprofit organization,” at 33.3% of respondents. Figure 4.10 is a bar chart that shows the percentage of the 81 respondents who reported participating in each activity. These are the same percentages shown in Table 4.58.

Figure 4.10

Bar Chart of Percent of Respondents Participating in Each Philanthropic Activity



Philanthropic Intent of Participants

There were seven items asking about the philanthropic intent of the participants, asking them to respond on a 6-point Likert-type scale from “strongly disagree” to “strongly agree.” Responses have been reduced to “agree” and “disagree” in order to aid interpretation of the results. The items and the percent agree/disagree with each statement have been provided in Table 4.59.

Table 4.59

Frequency Distributions of Items Regarding Philanthropic Intent

Philanthropic Intent	Count		
	Agree	Disagree	Percent agree
I intend to vote in the next election.	81	0	100.0
I intend to donate money to a social issue or nonprofit organization next year.	80	1	98.8
I intend to donate to a particular cause or organization the next year.	79	2	97.5
I feel motivated to become further involved in the issue of childhood cancer.	72	9	88.9
I intend to volunteer around a specific social issue or through a nonprofit in the next year.	67	14	82.7
I intend to donate money to Ohio State in the next year.	50	31	61.7
I intend to volunteer through Ohio State in the next year.	21	60	25.9

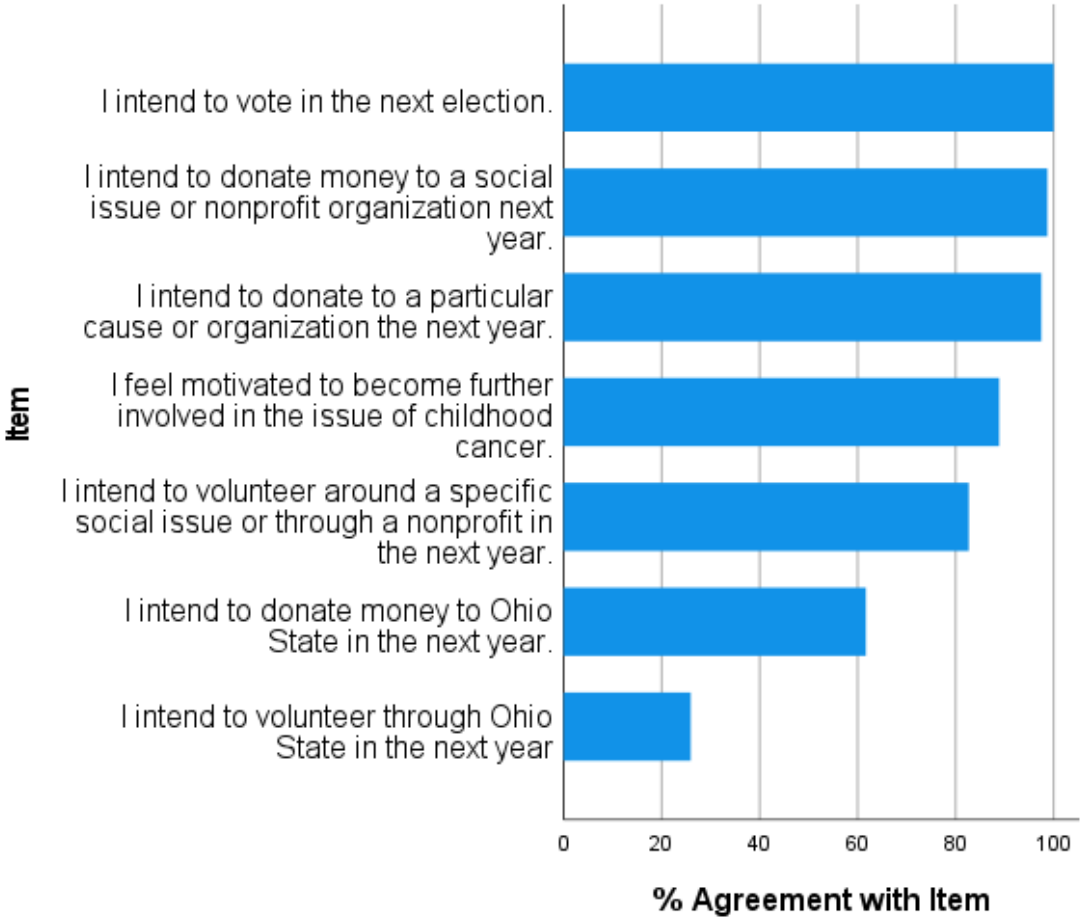
From Table 4.59, the item with the most common agreement was “I intend to vote in the next election,” with agreement from 100% of the respondents. This was followed closely by “I intend to donate money to a social issue or nonprofit organization next year” (98.8%) and “I intend to donate to a particular cause or organization the next year” (97.5%).

The item with the least common agreement was “I intend to volunteer through Ohio State in the next year,” at 25.9%. Note that all other items (including “I intend to donate money to Ohio State in the next year”) had greater than 50% agreement.

Figure 4.11 is a bar chart that shows the percentage of the 81 respondents who agree with each item. These are the same percentages shown in Table 4.59.

Figure 4.11

Bar Chart of Percent of Respondents Agreeing with Each Item Regarding Philanthropic Intent



Philanthropic Beliefs of Participants

There was one item that asked participants what activities they believe are included in philanthropy. Respondents could select one or all of eight activities. Table 4.60 provides the frequency distribution of those who believe each activity is included in philanthropy.

Table 4.60

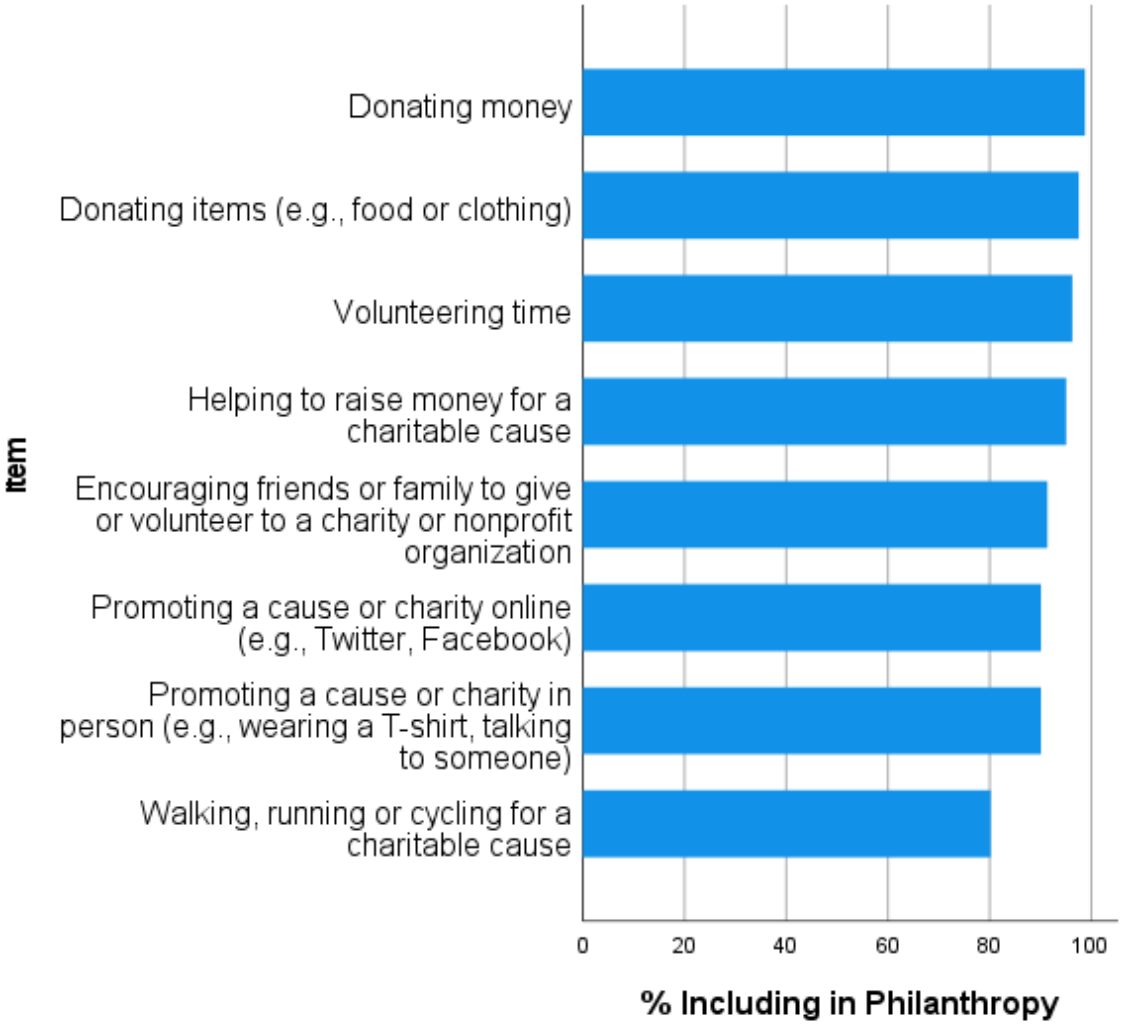
Frequency Distributions of Activities Included in Philanthropy

I believe philanthropy includes	Count		
	Yes	No	Percent yes
Donating money	80	1	98.8
Donating items (e.g., food or clothing)	79	2	97.5
Volunteering time	78	3	96.3
Helping to raise money for a charitable cause	77	4	95.1
Encouraging friends or family to give or volunteer to a charity or nonprofit organization	74	7	91.4
Promoting a cause or charity in person (e.g., wearing a T-shirt, talking to someone)	73	8	90.1
Promoting a cause or charity online (e.g., Twitter, Facebook)	73	8	90.1
Walking, running, or cycling for a charitable cause	65	16	80.2

From Table 4.60, the activity the greatest number of respondents believe is included in philanthropy is “Donating money,” at 98.8%. This is followed by “Donating items (e.g., food or clothing),” at 97.5%. The activity that was the least selected as included in philanthropy was “Walking, running, or cycling for a charitable cause,” which was chosen by 80.2% of respondents. All other activities were selected by no fewer than 90.1% of the respondents. Figure 4.12 is a bar chart that shows the percentage of the 81 respondents who reported believing that each activity is included in philanthropy. These are the same percentages shown in Table 4.60.

Figure 4.12

Bar Chart of Percent of Respondents Believing Each Activity is Included in Philanthropy



Qualitative Results

The survey for this study also included open-ended questions that allowed participants to add narrative comments. These qualitative data add some depth to our understanding of the BuckeyeThon experience and its effects. The open-ended questions included the following: How did your involvement in BuckeyeThon influence the way you think about future volunteering and donating?

The following qualitative data represents highlighted feedback from participants. The feedback has been organized in broad themes and ordered according to how many respondents provided feedback related to the respective themes.

How did your involvement in BuckeyeThon influence the way you think about future volunteering and donating?

1. Continued philanthropy after college

- Comfortable with volunteering
- Encouraged to donate to multiple causes
- Furthered my passion to help children
- Heightened interest in donating to philanthropy
- Heightened interest to volunteering
- I give back annually
- Made philanthropy an extreme passion
- More likely to get involved
- Motivates to focus on sustained engagement
- Passionate educating about important causes
- Strengthened desire
- Want to continue to give back
- Will donate and volunteer for life

2. Contributing small amounts can make a big difference

- Believe that every penny counts
- Can contribute time if you don’t have money
- No act is too small

- Value of donations

3. Furthered my understanding of philanthropy

- Changed perspective on time, talent and treasure
- Philanthropy can come in many forms not just money
- Shaped perception about giving back
- Value of repeated and sustainable philanthropy
- Foundational
- Other ways to donate – time vs money
- Think critically about philanthropic causes
- Understand the purpose of operating expenses

4. Importance of volunteering

- Appreciated amount of work in nonprofit
- How hard it is to get people to volunteer and donate
- Importance of cause connection
- Importance of doing good
- Learned a lot
- Learned about advocating for a cause
- Learned about fundraising
- Learning different organizations and nonprofits that exist
- More likely to encourage others to volunteer
- Unforgettable experience

5. Influenced my career

- Changed my life

- Forever indebted
- Inspired to work for a non-profit
- Interested in sustainable long term cashflow
- Volunteering is part of my career

6. Philanthropic activity makes an impact

- Chance to make a positive impact
- Ability to see impact on others
- Impact of team based fundraising
- Made me realize how impactful donations are
- Impact crowdfunding can make
- Impact of regular donations
- Even small donations have large impact

7. Sense of purpose

- Knowing there is something greater than
- Part of something bigger than themselves
- Make a difference
- Combine my heart and mind to make a difference
- Provides purpose during undergrad
- Recognizing the need for fundraising
- Shaped my collegiate experience
- Strengthened my confidence that I am able to make a difference
- Things that don’t directly affect me still make a difference

What did you enjoy most about volunteering with BuckeyeThon?

1. Being part of something bigger than myself
    - Gave purpose beyond grades
    - Growth of students
    - Helps the community
    - Working with families
2. Enjoyed the BuckeyeThon Community
    - Energizing passion among general body
    - Enjoyed people most
    - Friendships with like-minded students
    - Forming relationships
    - I felt like I belonged somewhere
    - Belonging
    - Loved the sense of community
    - Seeing the fundraising grow
    - The advisors
    - The friendships made to last a lifetime
    - Working with OSU staff
3. Helped me grow as a person
    - A challenge
    - Being finance chair
    - Best college experience I could have asked for
    - Grow as a leader
    - Set stage for further philanthropic work

- Skills gained

4. Impact of volunteering
    - Impact on families
    - Interaction with BuckeyeThon kids
    - Impact in real time
    - Seeing joy in everyone's faces
    - Seeing real actionable change in the community
    - The fun side of it
5. Making a difference
    - Being a voice/helping hand for others
    - Being around other passionate students
    - Felt like I was making a difference
    - Knowing we were making a difference
    - Learned any way I can help might make a difference
    - See the difference we were making
    - That the cause was local

What would you improve about the volunteer experience that might impact your sense of future engagement in your community and donating?

1. Better communication
    - Continued communication of impact of fundraising
    - Frequent reminders of cause
    - More notice of event date
    - Regular updates on how the org is operating

- Regular updates on where donations are going
- Showcase volunteer opportunities

2. Leadership issues
    - Felt like either leadership or second class
    - General Body members think they are better
    - Leadership wasn't the most inspiring
    - Pick good people to be president
3. Negativity needs to be addressed
    - Allow more people to be LT/Exec
    - Bad experience ruined my reputation
    - Had bad experience with Alumni Group
    - It felt cliquish
    - Jaded from experience
    - Maintain positive attitude
    - Redirect negativity
    - Some animosity exists
    - Some negativity exists
4. Stronger alumni programs
    - Increased alumni engagement
    - Alumni only asked to give money
    - Better engagement of alumni
    - Including donors and sponsors
    - More active alumni society to stay connected

- Need more opportunities to mentor current mentors
- Stronger connections with alumni
- Telling alumni how to donate
- Wasn't included in planning by alumni group

5. No suggestions
6. Time commitment can be too much
    - Biggest limitation is time
    - Consideration for those who cannot travel
    - Felt like a job vs volunteering
    - Geography gets in the way – not in Ohio
    - I'm too busy now to do any community work
    - More flexibility around my schedule
    - Opportunities to volunteer throughout the year
    - Standing commitment stops me from getting involved

Summary of Part 2

In terms of learning, 97.5% of respondents indicated that their BuckeyeThon involvement had an effect on their ability to develop effective solutions when faced with a challenge; and 90.1% said they have gained a better understanding of individuals from different backgrounds and cultures. In addition, a majority responded that the experience had a positive effect on their understanding of how to find services or programs to help then meet their professional goals (88.9%).

In terms of feeling a sense of belonging to Ohio State, 100% of respondents indicated feeling proud to be a graduate of Ohio State. Moreover, only 9.9% stated that it is hard for people like them to be included/accepted at Ohio State.

In terms of their interests and intentions, 100% of respondents indicated that they intend to vote in the next election; 98.8% said they intend to donate money to a social issue or nonprofit organization next year; and a majority indicated that they intend to donate to a particular cause or organization the next year (97.5%).

Chapter Summary

This chapter presented the results of statistical analyses that were conducted to explore the relationship between participation in a cocurricular student philanthropy program and alumni giving behavior toward the university and community engagement. I expected that participation in BuckeyeThon would be related to the likelihood of giving to the university and prosocial behavior.

The results of this research demonstrate that undergraduate participation in a cocurricular student philanthropy program has a positive association with alumni giving. Significantly more BuckeyeThon participant alumni are donors and give a greater amount over their lifetime than their do their nonparticipant peers.

As I will discuss further in Chapter V, these findings indicate a call for further investigation into giving habits of alumni of different types of student philanthropy programs and student organizations.

CHAPTER V: DISCUSSION

This chapter examines the main findings based on the research questions and contextualizes the findings in terms of the degree to which they contribute to challenging the extant research in the field. The chapter's second section explores the major implications for research and practice and concludes with a summary of overarching observations that can be drawn from this study.

Summary of the Study

The focus of this study was to understand the relationship between cocurricular student philanthropy education and both alumni giving and prosocial behavior. Concurrent mixed methods were used to examine the influence of cocurricular student philanthropy education on alumni giving and prosocial behavior.

By exploring the influence of cocurricular experiential student philanthropy engagement on alumni giving and prosocial behavior, this study informs our knowledge on how student philanthropy programs instill a campus culture of giving and prosocial behavior. A better understanding of this phenomenon will assist institutions and practitioners in their efforts to create student philanthropy education programs to engage students and successfully keep them connected to their alma mater as alumni in giving and prosocial behavior.

This study used a concurrent mixed-methods approach (Creswell, 2014), using QUANT/quant with nested qual, to address the following research questions:

Part 1 of the study consisted of a quantitative analysis using archival data and was designed to address RQ1.

RQ1: Is there a significant relationship between involvement in a cocurricular student philanthropy program and donor or nondonor status of recent alumni at The Ohio State University?

Part 2 included data collected using a survey designed for this study. A mixed-methods approach was employed. The design included a dominant quantitative analysis with a nested qualitative element. The qualitative analysis addressed RQ2, and the qualitative portion addressed RQ3.

RQ2: Are alumni who have participated as leaders in a cocurricular student philanthropy program involved in the nonprofit sector in terms of donating funds and volunteering?

RQ3: Do alumni who have participated as leaders in a cocurricular student philanthropy program believe that this experience enhanced their awareness of social problems and nonprofits, their beliefs about prosocial behavior, and their intentions to donate money to and volunteer for nonprofit organizations?

The answers to these questions can help practitioners better understand how to engage more college students and alumni in philanthropic giving and prosocial behavior.

Summary of the Methods

To address these research questions, this study collected data from one student philanthropy program: BuckeyeThon at The Ohio State University. Created in 1999 and first implemented in 2002, BuckeyeThon is a significant part of The Ohio State Student Philanthropy Education. BuckeyeThon is one of the most well established dance marathon programs in the country and is one of the largest in terms of the number of students and funds raised. BuckeyeThon's mission is to create a culture of philanthropy, raise funds, and create awareness for the Hematology, Oncology, and the Bone & Marrow Unit at Nationwide Children's Hospital

located in Columbus, Ohio (The Ohio State University, 2022). As a program of the Department of Student Philanthropy, BuckeyeThon works to achieve this mission through programs that enhance the student experience, teach and promote the value of philanthropy, establish a spirit of service and prosocial behavior, and cultivate relationships between students, faculty, staff, alumni, and community members. BuckeyeThon engages over 6,000 students annually in philanthropy (The Ohio State University, 2022).

This study collected information from Ohio State alumni who had participated in BuckeyeThon (Part 1) and who had participated as leaders in BuckeyeThon (Part 2) from 2002 to 2021. The first question (Part 1) compared giving patterns of recent alumni. The subjects for this study included all bachelor's degree recipients during 2002–2021 from The Ohio State University. Data on these individuals are maintained in the institution's advancement database system to which the author has access. University records regarding graduates' giving were generated from the advancement database system, and SPSS statistical software was used to conduct the analysis. The giving patterns of those who participated in BuckeyeThon were compared with those of alumni who had not participated in the program to determine whether there is a significant difference in giving rates.

The second and third questions (Part 2) involved a survey that included closed-ended questions and open-ended questions to probe more deeply. Alumni who participated as student leaders of BuckeyeThon were surveyed about their views on the value of student philanthropy programs and their reflections on its effect on their prosocial behavior, defined as volunteering and engagement in community organizations. The survey was analyzed to identify the influence of cocurricular philanthropy programs on both alumni giving patterns and longer-term prosocial behavior.

Summary of Findings

The overarching research question of this study asked, What is the influence of cocurricular philanthropy programs on both alumni giving patterns and longer-term prosocial behavior? Here, I look at what the results tell us about each question, and what this concurrent mixed-methods study invites for future research.

Research Question 1

Is there a significant relationship between involvement in a cocurricular student philanthropy program and donor or nondonor status of recent alumni at The Ohio State University? Although all participants in this study were undergraduate students during the years BuckeyeThon has been a program at Ohio State, it is important to note that between 2002 and 2012 BuckeyeThon was solely a student-run organization. BuckeyeThon became an official cocurricular student philanthropy program in 2013. Therefore, student experiences in this context must be looked at pre- and post-BuckeyeThon becoming an official program of the Department of Student Philanthropy, which meant that there was then administrative oversight and organized cocurricular student philanthropy education. It is also important to note that giving in this study is measured by whether or not an alumnus/a has ever donated, total revenue, total number of gifts, and cumulative years of giving. Their intentions to donate in the future were not part of the data.

That said, overall student participation at any level (participant, member, and leadership team) has a statistically significant relationship with donor status at Ohio State regardless of whether or not participation was before or after BuckeyeThon became a cocurricular student philanthropy program. When interpreting this result, it is also important to look at how BuckeyeThon participation changed between those two periods. Although the number of alumni

who graduated in these two periods is almost equal (see Table 4.1), there is a much smaller number of BuckeyeThon participants prior to 2013. In fact, an analysis of the percentages shows that 1% of undergraduate alumni who graduated between 2002 and 2013 participated in BuckeyeThon, whereas 19.7% of undergraduate alumni who graduated between 2013 and 2022 participated in BuckeyeThon. Moreover, donor rates are higher for BuckeyeThon members and leadership team who graduated when BuckeyeThon was an official cocurricular student philanthropy program. Thus, this study's findings indicate that formalized experiential student philanthropy education has a significant influence on alumni giving. These results support previous research that student engagement in experiential student philanthropy education leads to increased giving (Olberding, 2012).

Although there is a statistically significant interaction for both males and females in donor status, females have higher percentages of donors among BuckeyeThon participants than among nonparticipants. This means that even although both males and females have significantly higher percentages of donors among those who participated in BuckeyeThon, the difference between participants and nonparticipants is still different for males and females. From the probabilities in Table 4.6 as well as the odds ratios in Table 4.8, we can see that the odds of being a donor when participating in BuckeyeThon increase *more* for females than for males. Because there are so many observations in this data set, it is important to consider not only whether the differences are statistically significant but also whether they are practically significant. Although BuckeyeThon participation increases the odds of being a donor for females by a significantly greater multiplier than it does for males, are the differences shown in Table 4.6 (increasing from 31.5% to 51.4% for females versus from 31.0% to 48.1% for males) *important*?

There is little existent research on this and an area for future research consideration, to be touched on later in this chapter.

There is evidence that participating in BuckeyeThon increases the percentage of donors for all race/ethnicity groups except for Native American. It is important to note that even though the probability of being a donor decreases for Native Americans in this sample who participated in BuckeyeThon, this is not statistically significant and there is no evidence that this is an underlying trend among Native American alumni. The interaction does indicate that the change in percentage of donors when participating in BuckeyeThon is not the same for all races. From Table 4.11, the greatest increase in this sample was for individuals of mixed races, where the odds of being a donor were multiplied by 3.511 when participating in BuckeyeThon; this is followed by the increase for Asian/Pacific Island individuals, where participation in BuckeyeThon increases the odds of being a donor by a factor of 3.3. The distribution of race/ethnicity is shown in Table 4.1. There is little existing research on race/ethnicity in relation to cocurricular student philanthropy programs. Determining which race/ethnicity groups have significantly greater differences in donor percentages than others, when comparing BuckeyeThon participants with nonparticipants, would be another consideration, to be touched on later in this chapter.

Generally speaking, within any given college of study, the percentage of donors increases among BuckeyeThon participants versus nonparticipants. This is only not true for the College of the Arts, where donor status drops from 36.0% for non-BuckeyeThon participants to 33.3% for participants. However, the number of alumni who are both in the College of the Arts and BuckeyeThon participants is very small, and this difference may not be reflective of an underlying trend (it may be coincidence). There are some other colleges with very small numbers

of BuckeyeThon participants, including Biological Sciences, Education, Human Ecology, and Math and Physical Sciences. The greatest increase in this sample was for John Glenn School of Public Policy & Management, where the odds of being a donor were multiplied by 7.294 when participating in BuckeyeThon. For these and some other colleges, it may be difficult to show a relationship between BuckeyeThon participation to donor status. As with race/ethnicity, determining which colleges have significantly greater increases in donor status than others, when comparing BuckeyeThon participants with nonparticipants, is a consideration for future research.

There are seven subanalyses (refer to Table 4.1) interested for determining whether participants of six Ohio State student activities are different from BuckeyeThon participants and members/leaders. To do this, we examined only alumni who participated in exactly one of these activities (alumni who participated in both are not included, nor are alumni who participated in neither). BuckeyeThon members and leaders have statistically significantly higher donor rates than those involved in nearly every other activity with which we have compared them. The one exception is SPHINX Senior Class Honorary, which has higher donation rates. Sphinx is a very small organization with only 24 members each year and a mission to advance the university. BuckeyeThon participant donor rates are not as high as for some other activities; however, these donor rates are significantly higher than for Buck I Serv participants as well as fraternity and sorority members.

The results for BuckeyeThon participants and nonparticipants are presented separately for those with and without scholarships. For those without scholarships, the odds of being a donor are multiplied by 2.109 when they participated in BuckeyeThon. There are a statistically significant differences between BuckeyeThon participants and nonparticipants for those with and without scholarships; the percentage of participants who are donors is higher than for

nonparticipants. Additionally, the statistically significant interaction indicates that BuckeyeThon participation increases the odds of being a donor *more* for scholarship recipients than it does for nonrecipients.

The finding that cocurricular student philanthropy education generally has a positive influence on alumni giving supports those from previous research. Drezner (2011) stated that alumni satisfaction with their undergraduate experience was the most significant indicator of their donor status, and McDonald and Olberding (2011) reported that experiential student philanthropy is one of the factors that increases the willingness of alumni to give back monetarily. It is worth noting that any differences from the findings of previous research may be because this study focused on cocurricular/experiential student philanthropy education, whereas previous studies focused almost exclusively on curricular student philanthropy education. The results of this initial exploration welcome further research to be discussed in further in the chapter.

Research Question 2

Are alumni who have participated as members/leaders in a cocurricular student philanthropy program involved in the nonprofit sector in terms of donating funds and volunteering? The results of this study support previous research that student engagement in experiential student philanthropy education leads to increased giving and prosocial behavior (Drezner, 2011; Olberding, 2012). Participants were asked what philanthropic activities they had participated in during the previous year. Respondents could select one (or all) of 10 philanthropic activities. The activity that the most respondents participated in was “donated money to a charity or nonprofit organization one time,” with 85.2%. The activity with the next highest participation was “donated items to a charity or nonprofit organization (e.g., food clothing),” with 77.8%.

There were seven items asking about the philanthropic intent of the participants, asking them to respond on a 6-point Likert-type scale from “strongly disagree” to “strongly agree.” The item with the most common agreement was “I intend to vote in the next election,” with agreement from 100% of the respondents. This was followed closely by “I intend to donate money to a social issue or nonprofit organization next year” (98.8%) and “I intend to donate to a particular cause or organization the next year” (97.5%).

Infusing experiential student philanthropy within the programs of student life has yielded various benefits for students when it comes to donating to the university and prosocial Behavior. Ahmed and Olberding (2007) were one of the first to research the influence of student philanthropy by analyzing quantitative data from curricular student philanthropy. This study is in line with their research and adds the lens of a cocurricular program.

Research Question 3

In what ways do alumni who have participated as leaders in a cocurricular student philanthropy program believe that this experience enhanced their awareness of social problems and nonprofits, their beliefs about prosocial behavior, and their intentions to donate money to and volunteer for nonprofit organizations? There were seven items asking participants about philanthropic intentions. There were several items tied for most agreement including “Allowed me to gain new perspective on the importance of serving others,” “I am able to define what philanthropy means to me,” and “I can make a difference in the world by volunteering my time to a charity or nonprofit.” A total of 97.5% of respondents agreed with each of these items. The least agreed with item was “I received enough training to be an effective volunteer for Ohio State,” with 91.4% agreement. Note that over 90% of respondents agreed with each of the seven items.

Participants had a very high agreement rate for "I have practiced developing effective solutions when faced with a challenge," with a 97.5% agreement rate, and 90.1% said, "I have gained a better understanding of individuals from different backgrounds and cultures." Also, "I have a better understanding of how to find services or programs to help me meet my professional goals" had an 88.9% agreement rate.

This study supports the long-term influence of student philanthropy beyond graduation. Olberding (2012) was among the first to study the long-term influence of student philanthropy education, finding that the majority of participants reported that their student philanthropy experience had a positive influence on their awareness of community needs and nonprofit organizations.

Implications for Research

The review of literature in Chapter II identified that experiential student philanthropy education enhanced awareness of social problems and nonprofit organizations (Olberding, 2012) as well as increased knowledge of philanthropy and influenced participants' attitudes, interest, and intentions related to giving and prosocial behavior (Drezner, 2011). The findings from this study presented in Chapter IV illuminated a number of interesting findings supporting the existent research as well as implications for student philanthropy education with respect to cocurricular student philanthropy education. It is important to keep in mind that this study was purposefully focused on the philanthropic behaviors of alumni who participated in one cocurricular student philanthropy education program and that it was collected from one large public research institution. Thus, the findings may have limited transferability and should be seen as an initial step in understanding cocurricular student philanthropy and its influence on giving and prosocial behavior.

Whereas this study confirmed much of the current research explored in Chapter II, it also opened up areas for further exploration. One direction for future research is to conduct similar studies of alumni who have participated in cocurricular student philanthropy education at other colleges and universities, from smaller and/or private institutions, to establish a baseline regarding the influence of cocurricular student philanthropy education on alumni giving and prosocial behavior. A comparison study could also highlight the influence that differing institutional traditions and cultures may have on similar populations.

Another direction for future research is to include more qualitative design elements. This would enable us to better understand the effects of cocurricular student philanthropy education on individuals' learning, philanthropic intent, and prosocial behavior. Because the survey results of this study only give us the participants' self-reports, it would be important to add to the literature how student philanthropy education influences participants' decisions to engage with the community and become philanthropists, as well as which factors of student philanthropy education motivate alumni most to give and or volunteer. A qualitative study that includes conducting semistructured interviews would explore the stories and participant observations of the role student philanthropy education plays in giving and identify common themes that surface from the data.

This study identified several characteristics, such as ethnicity/race and gender, of those whose odds of giving to the university increased if they had participated in BuckeyeThon. Future research on women and ethnicity/race as donors and participants should be pursued, as these groups will continue to play a critical role in alumni giving. Research investigating the type of student involved in student philanthropy programs and their predisposition to involvement is also called for. How universities choose to involve these populations will be critical to the

institutions' fund-raising success. Furthermore, research should be conducted to determine whether college/major influences alumni giving and participation in student philanthropy programs. These were all initial findings in this current study that open up further paths for exploration. Answers to these questions would benefit institutions as they continue to develop cocurricular student philanthropy programs and inclusion of student affairs administrators in these efforts.

Implications for Practice

Although experiential philanthropy education has primarily been curricular and used to teach principles of nonprofit management, the findings from this research on cocurricular student philanthropy education indicate that the approach could be implemented more broadly within student affairs and higher education. Given the concerns of fund-raising and alumni giving in higher education as well as preparing students to be civically engaged global citizens, the current study's findings indicate that cocurricular student philanthropy programs can provide students with a better understanding of philanthropy, giving, social issues, and prosocial behavior. Such outcomes would benefit universities as well as communities at large.

Experiential cocurricular student philanthropy education is an innovative approach to connecting students to the university and communities. Therefore, by incorporating cocurricular student philanthropy programs, students will build an affinity to the university resulting in alumni giving as well as engagement in prosocial behavior. There are a number of potential implications for institutional fund-raising practices including but not limited to the inclusion of student affairs divisions supporting and implementing cocurricular student philanthropy programs.

This study demonstrated the existence of an effective model of cocurricular experiential student philanthropy education that should prove useful to institutions interested in better understanding the influence of student philanthropy education on alumni giving and community engagement. Furthermore, the study affirmed that student affairs divisions can have a significant positive influence on institutional advancement and the potential for increase in alumni giving. This is an important finding for both advancement divisions and student affairs divisions. Currently, it is unclear to what extent institutions are engaging student affairs department in student philanthropy education. The findings of this study should help institutions tailor their efforts to improve the philanthropic profile of their institution and better engage and attract more frequent donations from their alumni. For advancement staff, they may want to target students who are engaged in numerous academic and cocurricular student philanthropy activities while undergraduates for their fund-raising initiatives. Alumni associations may want to engage this group in committees, volunteer opportunities, and mentorship programs with current students.

For student affairs' professionals like myself, these findings validate our role in creating opportunities for students to engage and learn through cocurricular, leadership development activities. This study reinforces the importance of having student affairs professionals who are trained and educated to promote student engagement and student leadership development; most of these staff are educated with graduate degrees in student affairs and higher education administration.

The purpose of conducting research was to influence both theory and practice in higher education. This study can be used to inform institutional administrators of the potential role of student affairs divisions as well as to justify requests for funding for cocurricular student philanthropy programs. The findings of this study introduce the predictability of student

engagement in experiential student philanthropy as it relates to giving during the alumni years and prosocial behavior. This finding informs campus administrators and student affairs professionals of the importance of providing and encouraging students to become engaged in cocurricular student philanthropy programs.

This study also informs advancement professionals of specific profiles of alumni to engage in fund-raising and volunteer efforts. As institutions prepare for fund-raising campaigns and alumni engagement initiatives, they can us data, such as the results from this study, to inform program initiatives and alumni engagement. Institutions need to continue to reconnect and engage their alumni with the university. Focusing on alumni who were engaged in experiential student philanthropy programs may prove helpful in securing donations and engaging alumni in volunteer opportunities. Student affairs divisions need to work more closely with their university's advancement department in keeping accurate records of student involvement and activities/organizations their students were involved while undergraduates. This would facilitate the university's continued communication with alumni and to begin reconnecting with these alumni earlier.

Regardless of how philanthropy education is first introduced to students, the goal for the university is to establish a culture of philanthropy and an affinity to the university that will instill a habit of giving back to the university and community engagement. The long-term goal is to sustain this generosity for a lifetime. Fund-raising continues to play a critical role in the funding models of institutions. The findings of this study offer universities and practitioners an understanding of the importance of student philanthropy participation to alumni giving. By studying why participants donate at higher levels than their nonparticipant peers do, institutions may discover new strategies to be implemented to encourage increased monetary support from

their general alumni population. Leveraging the findings of this study provides institutions and student affairs divisions the opportunity to develop cocurricular student philanthropy initiatives as well as new fund-raising approaches that will grow the overall alumni giving to their university. The goal should be to use experiential student philanthropy to create a culture of giving that results in increasing giving from all alumni.

Reflections as a Student Affair's Professional—Positionality Returns

Studying the influence of cocurricular experiential student philanthropy education on giving and prosocial behavior was significant for me as a student affairs professional and as a researcher. As a professional, this research validated and confirmed my commitment to facilitating the higher education experience for students and creating a lifelong relationship and commitment with alma mater. As a researcher, this study allowed me to explore and understand the work that I do and its influence on the university and community within the larger potential of research and practice in student philanthropy education.

In addition to further opportunities for additional research, the findings of this study present opportunities for me to refine and develop the work I am currently doing with students and create programming for young alumni that would build connections and sustained relationships with the university. There is currently little or no overlap between student and young alumni programming. This is worth noting considering the percentage of students involved in student philanthropy programs at Ohio State and the opportunity to continue strong relationships and engagement with these students after they graduate.

Creating shared learning outcomes and collaborative programs between the Department of Student Philanthropy and the Alumni Association that maximize opportunities for student and

alumni interaction, especially during their senior year, could be beneficial in the effort toward creating a culture of giving to the university.

One of the themes that emerged from Part 2 of this study is the time commitments imposed by experiential student philanthropy involvement. As such, there is an opportunity to provide training and support to student leaders so they can manage their time effectively.

Although there are many ways in which to engage students and alumni, it was clear to me as a practitioner that the students engaged in cocurricular experiential student philanthropy education represented an important segment of the Ohio State institutional community and they experienced creating a culture of giving and prosocial behavior. This study demonstrated that researching this population will enable institutions to more effectively encourage increased alumni participation. Although future analyses are essential to further explore these phenomena in greater depth, this study supported previous literature that alumni who were involved in philanthropy education are more likely to stay connected to their alma mater and participate in institutional philanthropic efforts.

Conclusion

Colleges and universities are faced with the challenge of raising more money from alumni, and to successfully accomplish this challenge research on creating a culture of philanthropy and prosocial behavior is needed. Although this study examined the influence of cocurricular/experiential student philanthropy education on alumni giving and prosocial behavior, its findings align very well into the existing research. In addition to supporting the limited existing literature on student philanthropy education, this research provides new findings that are unique in its attempt to specifically examine the influence of cocurricular student philanthropy education.

The study found that experiential cocurricular student philanthropy education has a significant relationship to donor status and prosocial behavior of participants at relatively high rates, providing some evidence that the influence of cocurricular student philanthropy education has a long-term effect.

This study examined one of the largest and most established cocurricular student philanthropy programs at Ohio State University. Over the past 20 years, over 50% of the students involved in BuckeyeThon had given to the university. The survey of 81 alumni found that their student philanthropy experience had a major influence on their awareness, learning, beliefs, and intentions regarding giving and prosocial behavior. Experiential cocurricular student philanthropy offers a unique approach to educating students on civic responsibilities and prosocial behavior. The responses of participants who completed this study provide evidence that incorporating cocurricular student philanthropy education into their undergraduate experience influenced their learning as it pertains to giving and prosocial behavior.

The results of this study support findings from prior studies and provide practical implications to be considered in student affairs work in higher education. The findings of this study call on institutions to more fully comprehend the influence of undergraduate student involvement on the development of alumni donors and to collaborate with student affairs divisions in implementing cocurricular student philanthropy engagement opportunities. Finally, this study suggests directions for further research to a greater understanding how the involvement of undergraduates may influence giving from alumni.

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APPENDIX: SURVEY

Student Philanthropy

Student Philanthropy/BuckeyeThon Survey

Because of your past participation as a member of BuckeyeThon, XXX, a PhD candidate at Antioch University Graduate School of Leadership & Change is inviting you to take a survey for research. The purpose of this mixed method study is to understand the impact of co-curricular philanthropy programs at The Ohio State University on both alumni giving patterns and longer-term prosocial behavior. This study hopes to contribute to the field's understanding of the value of student philanthropy education both on donor giving and donor development. This survey will ask questions about your definition of philanthropy, philanthropic behavior, philanthropic intent and sense of belonging. Please be assured that your responses will be kept completely confidential.

The survey will take about 10 minutes to complete. Your participation in this research is completely voluntary. There are no negative consequences if you don't want to take it. If you start the survey, you can always change your mind and stop at any time.

If you have questions about the research, complaints or problems, contact. If you have questions about your rights as a research participant, complaints or problems, contact Antioch IRB (Institutional Review Board) at.

By clicking the button below, you acknowledge that your participation in this study is voluntary,

you are at least 18 years of age, and you aware that you may choose to terminate your participation in the study at any time and for any reason.

- ○ Take Survey

What best describes your involvement in BuckeyeThon?

- ○ BuckeyeThon General Body Member
- ○ BuckeyeThon Leadership Team Member
- ○ BuckeyeThon Executive Board Member

As a result of my involvement with BuckeyeThon:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I have gained more confidence in myself.	○	○	○	○	○	○
I have practiced developing effective solutions when faced with a challenge.	○	○	○	○	○	○
I am more confident when presenting ideas and information to others.	○	○	○	○	○	○

I have a better understanding of how to find services or programs to help me meet my professional goals.	○	○	○	○	○	○
I am better able to identify my personal strengths and weaknesses.	○	○	○	○	○	○
I am more self-aware	○	○	○	○	○	○

I have gained a better understanding of individuals from different backgrounds and cultures.	○	○	○	○	○	○
I am better able to listen to and consider others' perspectives.	○	○	○	○	○	○

Please rate your level of agreement with the following statements:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I felt like a real part of the Ohio State community.	○	○	○	○	○	○
People at Ohio State noticed when I did well at something.	○	○	○	○	○	○
It is hard for people like me to be included/accepted at Ohio State.	○	○	○	○	○	○
Other students at Ohio State took my opinions seriously.	○	○	○	○	○	○
Sometimes I did not feel as if I belonged at Ohio State.	○	○	○	○	○	○

There's at least one professor or staff member at Ohio State I was able to talk to if I had a problem.	○	○	○	○	○	○
People at Ohio State were friendly to me.	○	○	○	○	○	○
Professors at Ohio State were not interested/invested in my success.	○	○	○	○	○	○
I was included in lots of activities at Ohio State.	○	○	○	○	○	○
I was treated with as much respect as other students.	○	○	○	○	○	○

I felt very different from most other students at Ohio State.	○	○	○	○	○	○
I could really be myself at Ohio State.	○	○	○	○	○	○
The professors at Ohio State respected me.	○	○	○	○	○	○
People at Ohio State knew I could do good work.	○	○	○	○	○	○
I wish I attended a school other than Ohio State.	○	○	○	○	○	○
I feel proud to be a graduate of Ohio State.	○	○	○	○	○	○
Other students at Ohio State liked me the way I am.	○	○	○	○	○	○

I feel a sense of community with other Ohio State alumni.	○	○	○	○	○	○
I view Ohio State as a philanthropic organization.	○	○	○	○	○	○
I would give back to Ohio State.	○	○	○	○	○	○

As a result of my involvement with BuckeyeThon:

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I am able to define what philanthropy means to me.	○	○	○	○	○	○
I can make a difference in the world by volunteering my time to a charity or nonprofit.	○	○	○	○	○	○
I can make a difference in the world by donating money to a charity or nonprofit organization.	○	○	○	○	○	○

I believe a donation of $5 can make a difference to a charity or nonprofit organization.	○	○	○	○	○	○
Allowed me to gain new perspective on the importance of serving others.	○	○	○	○	○	○
I received enough training to be an effective volunteer for Ohio State.	○	○	○	○	○	○

I received enough training to be an effective volunteer for my community.	○	○	○	○	○	○

Which of the following do you or have you participated in during the last year? (please check all that apply)

- ☐ Donated money to a charity or nonprofit organization on a regular basis (e.g., annually, monthly
- ☐ Donated money to a charity or nonprofit organization one time
- ☐ Donated items to a charity or nonprofit organization (e.g., food, clothing)
- ☐ Volunteered one-time for a charity or nonprofit organization
- ☐ Volunteered regularly for a charity or nonprofit organization
- ☐ Helped raise money for a charitable cause
- ☐ Walked, ran, or cycled for a charitable cause

- [ ] Promoted a cause or charity online (e.g., on Twitter, Facebook)
- [ ] Promoted a cause or charity in person (e.g., wearing a T-shirt, talking to someone)
- [ ] Encouraged friends or family to give or volunteer to a charity or nonprofit organization

Philanthropic Intent

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I intend to donate money to Ohio State in the next year.	○	○	○	○	○	○
I intend to donate money to a social issue or nonprofit organization next year.	○	○	○	○	○	○
I intend to volunteer through Ohio State in the next year	○	○	○	○	○	○

I intend to volunteer around a specific social issue or through a nonprofit in the next year.	○	○	○	○	○	○
I intend to donate to a particular cause or organization the next year.	○	○	○	○	○	○
I intend to vote in the next election.	○	○	○	○	○	○

I feel motivated to become further involved in the issue of childhood cancer.	○	○	○	○	○	○

I believe philanthropy includes: Please select all that apply.

- ☐ Donating money
- ☐ Donating items (e.g., food or clothing)
- ☐ Volunteering time
- ☐ Helping to raise money for a charitable cause
- ☐ Promoting a cause or charity in person (e.g., wearing a T-shit, talking to someone)
- ☐ Walking, running or cycling for a charitable cause
- ☐ Promoting a cause or charity online (e.g., Twitter, Facebook)
- ☐ Encouraging friends or family to give or volunteer to a charity or nonprofit organization

☐ None of the above

Are you employed?

○ Yes

○ No

What is your current gender identity? Please select all that apply.

○ Woman

○ Man

○ Agender

○ Genderqueer or Genderfluid

○ Trans Man

○ Trans Woman

○ Prefer not to disclose

○ Preferred identity(in addition to or not listed above)
_____

What is your race/ethnicity? Please select all that apply.

- [ ] African American/Black or African descent
- [ ] Asian American/Asian (East, South, Southeast)
- [ ] Latinx/Hispanic American
- [ ] Middle Eastern/Arab American
- [ ] White or European American
- [ ] Prefer not to answer
- [ ] Preferred racial identity (in addition to or not listed above)

_____

What is your sexual orientation? Please select all that apply.

- [ ] Bisexual
- [ ] Gay
- [ ] Straight (heterosexual)
- [ ] Prefer not to disclose
- [ ] Preferred Identity (in addition to or not listed above)

_____

Are/were you: Please select all that apply.

- [ ] A first-generation college student
- [ ] An out of state student
- [ ] A transfer Student
- [ ] An international student
- [ ] None of the above

Year of Undergraduate Graduation

- ○ 2002
- ○ 2003
- ○ 2004
- ○ 2005
- ○ 2006
- ○ 2007
- ○ 2008
- ○ 2009
- ○ 2010
- ○ 2011
- ○ 2012

- ○ 2013
- ○ 2014
- ○ 2015
- ○ 2016
- ○ 2017
- ○ 2018
- ○ 2019
- ○ 2020
- ○ 2021

How did your involvement in BuckeyeThon influence the way you think about future volunteering and donating?

_____

What did you enjoy most about volunteering with BuckeyeThon?

_____

What improvements could be made the volunteer experience that might impact your sense of future engagement in your community and motivation to donate?

_____

Student Philanthropy/BuckeyeThon Survey