

DISSERTATION

EXAMINING FACTORS THAT INFLUENCE ALUMNI GIVING FROM TRADITIONAL  
AND ONLINE MBA ALUMNI AT COLORADO STATE UNIVERSITY

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## ABSTRACT

### EXAMINING FACTORS THAT INFLUENCE ALUMNI GIVING FROM TRADITIONAL AND ONLINE MBA ALUMNI AT COLORADO STATE UNIVERSITY

Increasingly, institutions of higher education seek out alumni support to help offset budget cuts and look toward technological advances to lower costs of instruction and create new revenue streams. In light of the desire to increase funding for university programs and the potential giving-power of MBA alumni, this study investigates factors that influence alumni giving from traditional and online MBA alumni. The relationship between sense of community, alumni demographics and donor behavior and attitudes is explored to consider factors that might predict alumni giving behavior and attitudes.

This quantitative study uses logistic regression and independent samples test statistical methods to reveal that the odds of an alumnus making a financial donation are increasingly greater as age increases and as gender is female. Analysis also suggests that the odds of an alumnus making a financial donation are increasingly greater as sense of community increases. Statistical analysis shows that online CSU MBA alumni are different than traditional face-to-face CSU MBA alumni on sense of community, whereby the sense of community score for the online alumni is significantly lower than the score for traditional face-to-face alumni. Analysis in this study also demonstrates, however, that online alumni do not differ from face-to-face alumni on the following characteristics: age; donor status; attitude toward giving; gender; citizenship; and race/ethnicity.

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## CHAPTER 1: INTRODUCTION

### **Background**

For decades, higher education has faced threats from reduced levels of state and federal government funding. Public institutions of higher education suffer particularly from volatility in state appropriations budgeted for college and university expenditures. Both public and private colleges and universities suffer from reductions in federal grant monies that fund and support research activities (among other things), when cuts at the federal level are made. Increasingly, when facing reductions in funding, institutions of higher education seek out alumni support to help offset budget cuts and look toward technological advances to lower costs of instruction and create new revenue streams.

State support for higher education varies from budget year to budget year. Caution, therefore, must be used when making comparisons of dollars allocated from one year to another. Delaney (2014), however, found that the average state appropriation per student (in constant 2012 dollars) was \$8,497 in 1987, rose to \$8,670 per student in 2001, and was down to \$5,906 per student by 2012 (p. 59). Public colleges and universities experienced, on average, a 30 percent reduction in state financial support between 2001 and 2012. Similarly, Doyle and Zumeta (2014) found that state appropriations for higher education fell 23 percent per student from 2007 through 2012, while net tuition revenue per student increased by 19 percent. This recent drop in state support follows a trend in higher education that sees deep cuts to education budgets during economic downturns, and modest increases in spending during times of prosperity (Delany, 2014).

Levels of private giving to colleges and universities have fluctuated in recent years as well. In 2009, charitable contributions to colleges and universities in the United States fell 11.9



percent from \$31.60 billion, the historical high point at that time, to \$27.85 billion (Kaplan, 2014). Voluntary contributions to US institutions of higher education have recently rebounded, increasing to even higher historic levels. Yet, individual alumni participation actually fell from 9.2 percent in 2012 to 8.7 percent in 2013 (Kaplan, 2014). A higher level of alumni giving from individual contributors explains how the decline in the number of donors led to an overall increase in the amount of money recently raised through alumni (Kaplan, 2014). According to Council for Aid to Education data, foundations provided the highest level of voluntary support for higher education in 2013 with 29.6 percent of the total support, while alumni provided the second highest level of support at 26.6 percent (Kaplan, 2014). Non-alumni private support was the third highest level of support in 2013 at 18.3 percent followed by corporations at 15.1 percent (Kaplan, 2014).

Doyle and Zumeta (2014) highlight the use of technology-enhanced learning as one method that colleges and universities have employed to control costs of higher education. Online courses enable schools to augment traditional face-to-face course offerings at a large scale and, in many cases, allow for the development of revenue generating online degree programs that reach new or distant markets. Distance education programs, like those offered online, have evolved over decades at colleges and universities around the world. Beyond being a way to lower costs and raise revenues, like their traditional face-to-face counterparts, distance programs also have alumni populations from which voluntary contributions in support of the institution can be generated.

As colleges and universities struggle with unpredictable and often reduced financial support from government, the desire to secure more funding from nontraditional sources has increased. For example, community colleges as a whole have not been as engaged as four-year

institutions in raising funds from former students (Herman, Dittman, Herbert, & Ebben, 2006 as cited in Skari, 2014). Yet, Skari (2014) found that targeting alumni from two-year community colleges who earned an associates degree, were older, and gave to other charitable organizations, resulted in more effective fundraising and higher levels of alumni giving (p. 38). Similarly, MBA programs, particularly those with online students, could benefit from studies that help describe what factors or characteristics lead to successful giving from their alumni.

While the research regarding giving from online graduate degree alumni is extremely limited, the literature on alumni giving at both the undergraduate and graduate levels for traditional programs suggests several factors help determine whether alumni give back to their alma mater. In his 2004 study on alumni giving, Hoyt extensively reviewed the literature and found that the financial ability to give is often cited as a condition for giving (Ashcraft, 1995; Brittingham & Pezzulo, 1990; Bruggink & Siddiqui, 1995; Connolly & Blanchette, 1986; Hunter, 1997; Lindahl & Winship, 1994; Melchiori, 1988; Mulugetta, Nash, & Murphy, 1999; Okunade, 1993 & 1996; Okunade & Berl, 1997; Okunade, Wunnava, & Walsh, 1994; Pearson, 1996; Schmidt, 2001; Taylor & Martin, 1995; Wunnava & Lauze, 2001; Young & Fischer, 1996, as cited by Hoyt, 2004). Perceived need for financial contribution was also often cited as a condition for giving (Connolly & Blanchette, 1986; Diamond & Kashyap, 1997; Taylor & Martin, 1995, as cited by Hoyt, 2004). Additionally, emotional attachment (Moore, 2014; Sargeant & Shang, 2012; Weerts & Ronca, 2007), or satisfaction with the student experience (Baker, 1998; Clotfelter, 2001 & 2003; Dean, 2007; Gaier, 2005; Hoyt, 2004; Monks, 2003; Tinto, 1993), have been shown to impact the giving behavior of alumni. The present study considered several factors but introduces sense of community as a variable to explore with respect to the giving behavior and attitudes of alumni.

While sharing characteristics with sense of belonging (Miller, 2013), sense of community is another available measure to consider the relationship between student experience and alumni behavior. As conceptualized through his identification model, Schervish (1997) suggests financial giving comes not from mere membership in a group, but instead, comes from communities of participation that result from a serious level of engagement and identification with the group (Lindahl & Conley, 2002). Several instruments have been developed to measure sense of community, but Rovai, Wighting, and Lucking (2004), based on the sense of community definition and theory of McMillan and Chavis, developed and tested the Classroom and School Community Inventory (CSCI) to specifically account for student sense of community within classrooms and within the larger educational institution. The CSCI has been validated for both traditional and online environments, which made it especially appropriate for use in this study.

### **Statement of the Research Problem**

Graduate alumni fall into the category of neglected populations that universities typically fail to include in annual fundraising efforts (Pooch, & Siegel, 2005). Similarly, in comparison to the research on undergraduate giving, few studies have been published regarding graduate alumni giving (Baruch & Sang, 2012; Bruce, 2007; Johnson, Thomas & Peck, 2010; Okunade, 1996; Okunade & Berl, 1997; Okunade, Wunnava, 2011; Pooch & Siegel, 2005). As online programs have developed and evolved, little attention has been paid to the population of prospective alumni donors from distance/online programs, and still less has been published on this subject to date (Black, Dawson, & Ferdig, 2006; Casey & Lorenzen, 2010; Tiger & Preston, 2013). Additional research on giving by alumni of online programs has been conducted by masters and doctoral students (Baker, 1998; Hurst, 2008; Ketter, 2013; Miller, 2013; Moore, 2014; Whitby, 2014), with varying degrees of depth and rigor. Still, only two studies could be

found in the literature that researched the giving behavior of alumni specifically from graduate-level online programs, one being a dissertation (Ketter, 2013) and the other a pilot study (Lesht & Schejbal, 2002).

Master of business administration (MBA) programs, offered via the Internet, attract students seeking the educational preparation and training for careers often in the private sector. Relative to other graduate alumni, MBA graduates often possess high capacities to give. In light of the desire to increase funding for university programs, and the lack of relevant research regarding the giving behavior of alumni of graduate and online distance programs, investigating factors that influence alumni giving from traditional and online MBA alumni should prove instructive to university officials engaging futures cohorts of students and alumni. Contrasting the giving behaviors and attitudes from alumni of MBA programs conducted online with those of alumni of MBA programs pursued traditionally (face-to-face) should help determine whether differences exist between the two groups and should further an understanding of which, if any, factors are most influential.

### **Purpose of the Study**

The purpose of this study was to examine the relationship between personal characteristics and experiences, and financial giving behaviors and attitudes toward giving of traditional face-to-face MBA alumni and distance (online) MBA alumni administered at a major public research institution. In this study, personal characteristics and experiences included demographic information, academic program type, program activities experienced by students, and sense of community experience by students. Giving behavior was defined as “donor” or “non-donor,” and attitudes toward giving were defined by “intend to donate” or “no intention to donate.”

## Theoretical Framework

The main concern of this study was the relationship between sense of community and the giving behavior and attitude of online and traditional MBA alumni. The theoretical frameworks informing this included sense of community theory (McMillan & Chavis, 1986), involvement theory (Astin, 1975), and identification theory of charitable giving (Schervish & Havens, 1997).

The links between various demographic characteristics and alumni giving behavior have been investigated by numerous researchers over recent decades, with the following examples being touted as significant factors related to donor behavior: age (Bruggink & Siddiqui, 1995; Lindahl & Winship, 1992; Okunade & Berl, 1997; Sun, Hoffman, & Grady, 2007; Weerts & Ronca, 2007; Wunnava & Lauze, 2001), economic means to give (Bruggink & Siddiqui, 1995; Clotfelter, 2003; Taylor & Martin, 1995), marital status with another alum (Dean, 2007; Okunade & Berl, 1997), satisfaction with their educational experience (Clotfelter, 2003; Gaier, 2005; Hoyt, 2004; McDearmon & Shirley, 2009; Monks, 2003; Tom & Elmer, 1994), and level of involvement (Bruce, 2007; Bruggink & Siddiqui, 1995; Gaier, 2005; Lindahl & Winship, 1992; Taylor & Martin, 1995; Weerts & Ronca, 2007). While this study considered some of these potential factors and others, it introduced *sense of community* as a unique factor when exploring the giving behavior and attitudes of MBA alumni. The relationship between sense of community and giving is explained by Schervish and Havens's identification theory (1997), and both sense of community and identification theory are influenced by involvement theory (Astin, 1975).

Promulgated by Alexander Astin, student involvement theory considers the activities of university students and the impact those activities have on educational and developmental outcomes. Specifically, involvement refers to "the amount of physical and psychological energy

that the student devotes to the academic experience” (Astin, 1999, p. 518). The theory postulates that the “amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program” (1999, p. 519). High levels of student involvement in co-curricular and extracurricular activities have been found to relate to numerous positive outcomes for students including degree completion and increased student learning (Astin, 1975; Terenzini & Pascarella, 1991). Results from several studies supported a relationship between various types of undergraduate involvement and alumni giving (Astin, Sax, & Avalos, 1999; Baker, 1998; Klostermann, 1995; Lindahl & Winship, 1994; Monks, 2003; Mulugetta, Nash, & Murphy, 1999; Pearson, 1996; Rosser, 1997; Taylor & Martin, 1995; Young & Fischer, 1996; as cited by Hoyt, 2004).

Sense of community in this study followed from the work of McMillan and Chavis, who developed the first workable definition and theory. McMillan and Chavis (1986) defined community and identified four key tenets that underpin the development of community. McMillan and Chavis’s (1986) sense of community requires: membership (a feeling of belonging); influence (a sense of mattering); reinforcement (a sense that membership leads to support from the group); and shared emotional connection (a commitment and belief that members share in their histories, locations, time, and experiences). Their definition of sense of community is “a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together” (McMillan & Chavis, 1986, p. 4).

Identification theory of charitable giving (Schervish & Havens, 1997) attempts to explain the social processes that lead donors toward charitable giving. Schervish and Havens reject the theory of altruism and selflessness as motivation for giving and contend that charitable acts, such

as giving, are self-interested acts that overlap with the interests or needs of others. Identification theory of charitable giving builds upon earlier work in which Schervish found that donors gave because of a commitment created by their identification with the needs of others (Schervish & Havens, 1997). It also adopts the notion that philanthropy, as a relationship, is generated most clearly via participation in community (Schervish & Havens, 1997, p. 239). Schervish and Havens further describe their identification model as being relational, explaining that “charitable giving derives from identification, identification derives from encounter, encounter derives from relationship, and relationship derives from participation” (1997, p. 240).

### **Research Questions**

After a review of the literature, the following three research questions were developed to guide this study.

1. How do demographic characteristics (e.g., gender, age, years since graduation) of online and traditional MBA alumni relate to their donor behaviors and attitudes toward giving?
2. How does the sense of community experienced by online and traditional MBA students relate to their donor behaviors and attitudes toward giving as alumni?
3. How do alumni who pursued their MBA online differ from alumni who pursued their MBA traditionally (face-to-face) regarding demographic characteristics, sense of community experienced, and donor behavior and attitudes toward giving?

### **Definition of Terms**

The following list of terms and definitions is provided to assure a common understanding of language used throughout the study.

*Alma mater* – As defined in this study, alma mater refers to the educational institution once attended by a former student.

*Alumnus/Alumni* – Defined in this study, alumnus will refer to an individual (male or female) who completed an academic program that led to an earned degree at a college or university.

Alumni will be used as a gender-neutral plural form of alum (Binkley, 2012).

*Alumni giving* – Defined in this study, alumni giving refers to voluntary financial contributions by alumni in support of their alma mater. See also, *donor behavior*.

*Attitude toward giving* – Defined in this study, attitude toward giving refers to potential voluntary financial contributions by individuals in support of an institution, as indicated by “intend to donate” or “no intention to donate” status. See also, *alumni giving* and *donor status*.

*Distance education* – Distance education involves two-way communication between teacher and student for the purpose of facilitating and supporting the educational process; uses technology to mediate the necessary two-way communication; and implies that the majority of educational communication between teacher and student occurs non-contiguously (Garrison & Shale, 1987).

*Donor behavior* – Defined in this study, donor behavior refers to voluntary financial contributions by individuals in support of an institution, as indicated by “donor” or “non-donor” status. See also, *alumni giving*.

*Online MBA student/alumnus/alumni* – Defined in this study as a student/graduate/graduates of a MBA program offered via the Internet where the vast bulk of content (80+%) is delivered online.

*Online program* – An online program has courses where the vast bulk of content (80+%) is delivered online, and typically has no face-to-face meetings (Allen & Seaman, 2011).



*Program activities* – Defined in this study, program activities are student actions or activities fostered by the academic program in which students participate as required by the course/degree program, or as voluntary co-curricular, professional development, or social engagement.

*Sense of community* – Sense of community is “a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to be together,” (McMillan & Chavis, 1986, p. 9).

*Traditional MBA student/alumnus/alumni* – Defined in this study as a student/graduate/graduates of a MBA program where the vast bulk of course content (80+%) is delivered face-to-face.

*Traditional program* – A traditional program is an educational program where the vast bulk of course content (80+%) is delivered face-to-face.

### **Delimitations**

This study utilized data solicited from the traditional professional MBA alumni and the distance/online professional MBA alumni from Colorado State University’s College of Business, located in Fort Collins, Colorado. Responses from any MBA alumni who were not specifically enrolled in the professional MBA graduate business degree were excluded. Responses from any MBA alumni who were enrolled in a distance program but not delivered online via the Internet were excluded. To remove a potential confounding variable and guard against omitted-variable bias, responses from MBA program alumni who are also alumni of another program (e.g., undergraduate degree) from the same university were also excluded.

## **Limitations**

This study made use of a survey instrument available via the Internet to gather data from MBA alumni. As the data is self-reported, there are inherent limitations with respect to accuracy of the data from respondents with potential biases resulting from selective memory, attribution, telescoping, and/or exaggeration biases.

Another limitation of the study is sample size. The use of logistic regression analysis is appropriate for the dichotomous dependent variables of the study (donor vs. non-donor; intend to donate vs. no intention to donate; online vs. traditional MBA). However, the use of logistic regression requires large sample sizes for its parameter estimation procedures to be effective (Bergtold, Yeager, & Featherstone, 2011). The sample size of this study was robust enough for use of logistic regression analysis for the limited numbers of variables considered in the analysis. Consideration of additional variables would have weakened the statistical power of the results.

The sampling technique was cross-sectional and the survey instrument made use of data collection through a Qualtrics online survey, necessitating access to the Internet by participants. Given the nature of this study of alumni who participated in advanced business degree programs, many via a program offered via the Internet, the potential impact of this limitation is thought to be negligible.

Lastly, the use of the online professional networking site, LinkedIn, for data collection may result in sampling bias. As the LinkedIn alumni group does not include all alumni of CSU's professional MBA, but consists of individuals who opted to join the online alumni group, the sample may or may not have been representative of the population of CSU's MBA alumni. To address this threat to external validity, descriptive statistics of the study's respondents were compared with demographic data of College of Business MBA students publically available

through Colorado State University's Office of Institutional Research. Analysis of the two groups suggests that the sample was significantly representative of the population.

### **Significance of the Study**

This study has six separate but related benefits. First, a study related to graduate alumni giving is a useful addition to the literature, as there are but a very few relevant studies published related to graduate school alumni and their giving behavior. While undergraduate programs have benefitted from a greater emphasis on alumni fundraising than have graduate programs historically, to include many more studies published on undergraduate alumni giving, graduate programs have similar opportunities to benefit from financial contributions from their alumni as do undergraduate programs.

Second, a study related to MBA alumni giving also benefits the literature given the few published studies on this specific graduate population. Given the potential financial impact this alumni population holds, based on its potential giving-power, further study of MBA alumni offers additional practical benefits to researchers and university administrators.

Third, a study related to online alumni giving similarly adds to the literature as there are almost no studies on alumni giving relevant to online populations and the potential to impact successful administration of such programs to the benefit of students, alumni, and alumni stewardship. There have been several calls for additional research into the giving behaviors of alumni from distance programs offered online (Black, Dawson, & Ferdig, 2006; Casey & Lorenzen, 2010; Lesht & Schejbal, 2002).

A fourth benefit comes from the combination of the three benefits listed above. A study related to graduate, online MBA alumni giving adds to the literature in considering all three areas

of interest together at once, with opportunities to benefit future researchers and administrators in related fields.

Fifth, this study further develops the understanding of the theoretical relationship between sense of community and alumni giving. The findings of the proposed research offer insight into how the construct of sense of community relates to the giving behavior and attitude toward giving by alumni, while further advancing the understanding of the charitable giving identification theory, involvement theory, and sense of community theory.

Finally, this study benefits the practitioners who manage the MBA programs at Colorado State University, to include those who administer activities relevant to current students, but more specifically, those who seek to raise funds from alumni who studied online and on-campus. Results of the study provide insights into how practitioners might approach the design and delivery of the MBA program, as well as how fundraisers might consider efforts for increasing the number of alumni donors and number of dollars raised.

### **Researcher's Perspective**

As a student affairs practitioner who has worked exclusively with professionally oriented graduate populations for over 18 years, I came to this study interested in expanding the already robust literature available on undergraduate alumni giving with the goal of providing insight into the underdeveloped research of graduate alumni giving.

Similarly, as a current doctoral candidate engaged in a hybrid program that includes traditional face-to-face residential instruction and synchronous online/distance education studies, I have developed an interest in the growing importance that online education has with respect to institutions of higher education. I believe that the way in which universities utilize the tools available to extend their reach and offer educational opportunities to (residential and) distance

students can shape educational outcomes as well as the kind of relationships that students have with their schools, well into the future.

My interest in this study stems from the intersection of an academic research opportunity and potential personal professional growth opportunity. The dearth of research regarding how distance graduate programs offered via the Internet may impact the behavioral outcomes of alumni is one research opportunity I address in this study and one contribution I make to the literature. An understanding of how distance MBA programs offered online influence the giving behavior of alumni, with an interest in utilizing that knowledge to better equip programs to encourage program design with potentially improved donation rates, is an outcome I hope to make use of in my professional career.

## CHAPTER 2: REVIEW OF THE LITERATURE

This chapter provides an overview of existing literature related to alumni giving in higher education, distance education, and sense of community. The chapter explores the historical context for alumni giving and studies relevant to the giving behavior of business school alumni. The chapter further explores the historical context of distance education, and considers academic programs offered via the Internet as the latest iteration of distance learning. Sense of community is then explored as a construct, with a review of potential instruments of measurement.

### **Alumni Giving**

This section will provide a brief historical context for fundraising in American colleges and universities as well as a review of the related studies on business school alumni giving. A consideration of graduate students as a unique population of students follows and is offered in contrast to undergraduate students and the previous research conducted on giving of alumni from undergraduate programs.

### **Development in American Higher Education**

Collegiate fund raising in America began modestly in 1640 with Henry Dunster, the first president of Harvard College (Lasher & Cook, 1996). While records of alumni solicitations from US colleges date back to the late 17<sup>th</sup> Century (Brittingham & Pezzullo, 1990), most voluntary gifts received by institutions of higher education in early America came from individual benefactors (Rudolph, 1990). Harvard and Yale universities are not named in honor of the founders of those institutions, nor are they named after famous alumni; instead John Harvard and Elihu Yale simply were the first large donors to these institutions (Rudolph, 1990). Yet since those very early days when funding for higher education came largely from wealthy benefactors,

alumni giving has grown in increasing importance to public and private colleges and universities, at both the graduate and undergraduate level (Rudolph, 1990).

The first alumni association was formed in 1821 at Williams College, and it was not until 20 years after it was first proposed by Prof. William Graham Sumner that Yale initiated the first alumni fund drive in 1890 (Stewart, 1955). The success of Yale's coordinated effort led other colleges and universities to fully recognize the value of organized alumni fund raising (Stewart, 1955). However, levels of alumni support remained modest and unchanged until after World War I (Curti & Nash, 1965, as cited in Binkley, 2012).

Individual voluntary financial support plays an integral role in the growth and survival of most colleges and universities in the United States. Of the major sources from which colleges and universities receive voluntary funding, donations from alumni (private individuals) currently make up the second largest group, with support from foundations topping the list (Kaplan, 2014).

Alumni solicitations allow institutions to remain connected to members of their community while seeking financial support for activities and interests seen as valuable to potential donors. Financial giving by alumni to their alma mater enables colleges and universities to support current use priorities, while large amounts of funds raised can build endowments that continue to support the functions of the school for years to come. Additionally, the results of those alumni solicitations can play a factor in how college and university programs are ranked by a variety of publications such as *U.S. News and World Report*. Among other factors, such as academic prestige, graduation and retention, selectivity, faculty resources, and financial resources, alumni giving is one of the variables used to determine overall rankings of higher education institutions (Grewal, Dearden, & Lilien, 2008).

## **Business Programs**

In 1991, Okunade and Berl (1997) conducted a stratified random sampling (by graduation year and gender) of 2,000 business school alumni of a large, US public research institution from graduating classes between years 1955 and 1991. The effective return was 27.3 percent for the mail survey. Results showed that older alumni were significantly more likely to donate than their more recent counterparts, and marginal probabilities of giving with respect to graduating classes increase as time since graduation increases (Okunade & Berl, 1997). The marginal effect of giving if alumni spouses earned a graduate degree from the same alma mater was 38.2 percent, yet 33.4 percent if the alumni spouse earned a baccalaureate degree at the alma mater (Okunade & Berl, 1997). A willingness to recommend the school to others, considered a measure of alumni satisfaction with the program (Mael & Ashforth, 1992), increased the giving probability by 27.3 percent (Okunade & Berl, 1997). The study's major conclusions indicated that business program alumni who were considered the "most promising prospects" had majored in finance, real estate, or insurance studies; held their degrees longer; were married to a fellow alum or had other family members who attended the same institution; recommended their alma mater to others; knew other individuals who gave to their schools; had employers who matched gifts; or had higher level of household income (Okunade & Berl, 1997, p. 211).

In 1996, Okunade published a study on the giving behavior of alumni of graduate programs at The University of Memphis, an urban comprehensive doctorate-granting institution. The study reviewed the giving history for all graduate alumni for whom records were available between 1974 and 1990. With 278 graduate degree alumni giving records over 16 years, the panel data set yielded 4,448 observations (Okunade, 1996, p. 219). Among the results of the study, Okunade (1996) found that MBA alumni were among the most promising graduate alumni



fundraising prospects. The study also found that men who held their graduate degrees longer, and during periods of economic stability, were more likely to positively respond to solicitations for funds from their alma mater. The author also cautioned other interested researchers from combining undergraduate alumni donor data with graduate alumni donor data, as results of the study differed from previous research conducted on undergraduate alumni (Okunade, 1996, p. 224).

Schoenfeld (2004) identified that MBA graduates' donating behavior is predicted by their satisfaction with four aspects of their education: networking opportunities, increase in earning power, preparation to get a good job, and the credentials desired. Cunningham and Cochi-Ficano (2002) suggested the academic reputation of the institution is a significant predictor of alumni's donation to their alma mater. Bruce (2007) identified "alumni involvement" as the strongest predictor of inclination to donate amongst MBA graduates.

In researching the donor behavior of MBA alumni, Baruch and Sang (2012) used data from an online survey administered by the Graduate Management Admission Council (GMAC) to 17,376 MBA graduates from the classes of 2000 to 2006, yielding 3,677 responses, a 22 percent response rate. The researchers found that satisfaction with the MBA, university prestige, and current salary were significant predictors of financial donations of MBA. Age and gender were not significant predictors of financial donations in this study (Baruch & Sang, 2012). Baruch and Sang suggest MBA programs should encourage students to become actively engaged in their institution, "thereby instilling a sense of affinity between the individual and the university. This affinity may then continue beyond graduation and translate, not only to graduates' time in terms of volunteering, but also financial donations" (2012, p. 818).

In his 2007 study, Bruce used data from the online survey administered by the Graduate Management Admission Council (GMAC) to study both the likelihood of financial donation by MBA alumni as well as actual donor behavior of MBA alumni. The study found that age, gender, and race/ethnicity were not significantly correlated with the likelihood of future financial donations; work experience, job search, and salary variables were weakly correlated with the likelihood of a future financial donation; but satisfaction with benefits of the MBA, ratings of the overall value of the MBA, ratings of the quality of the school/program, and willingness to recommend one's school were moderately and positively correlated with donation likelihood (Bruce, 2007, pp. 7-8). After "value of the MBA," the second-most influential variable for likelihood to donate was respondent satisfaction that the MBA has given them the opportunity to network and to form relationships of long-term value (Bruce, 2007).

Bruce (2007) found that *actual* giving from MBA alumni was weakly correlated with work experience, job search and salary, just as they were with donation likelihood. Satisfaction with the benefits of the MBA and ratings of the school/program were positively correlated with alumni giving, although less strongly than in the analysis of donation likelihood. Similarly, the ratings of the overall value of the MBA at graduation and the respondent's willingness to recommend their school were positively correlated with alumni giving but less strongly than in the analysis of donation likelihood. Alumni involvement was correlated more strongly with alumni giving behavior than any of the other variables analyzed (Bruce, 2007, p.13).

The 2014 GMAC Alumni Perspectives cross-sectional survey of 20,704 alumni representing 132 graduate business schools found that 47 percent of alumni surveyed reported that they had made a financial donation to their graduate business school (Schoenfeld, 2014). Of those who donated previously, 82 percent indicated that they would give again in the future. Of

those who had yet to make a gift, 30 percent indicated they planned to give in the future (Schoenfeld, 2014).

In his 2013 dissertation, Ketter studied predictors of alumni donor behavior in graduates of the traditional MBA and internet-based (*i*MBA) programs at The Pennsylvania State University. While the two graduate business degrees are not identical in their design, the results suggested that Penn State online graduates have higher levels of student and alumni experiences than do traditional MBA graduates, and that student and alumni experiences overall are predictors of alumni donor behavior.

Ketter used a sample size of 500 from a total population of 1387 (860 MBAs and 527 *i*MBAs). Ninety-five questionnaires were returned from the MBA graduates for a 31 percent response rate and 86 questionnaires were returned from the *i*MBA graduates for a 45 percent response rate (Ketter, 2013, p. 45). The survey was a self-administered questionnaire and used a 5-point value congruence Likert-scale to measure determinants of alumni donation behavior. The 46 item questionnaire included questions representing the subscales alumni experience (alumni association and engagement), and student experience (impact on career, relationships, and academic). The quantitative study utilized logistic regression, *t*-tests, correlation coefficients and analyses of variances statistical analysis methods (Ketter, 2013).

Through his analysis, Ketter found that alumni of the online MBA program “forged stronger and more lasting relationships while students than traditional graduates” (2013, p. 94). He also found that the graduates of the online MBA demonstrated higher levels of academic experience than did the traditional MBA graduates from Penn State.

## **Graduate Students and Socialization**

The experiences of graduate school students can be markedly different than those of other students in higher education. As such, the relationship a graduate student has with his/her alma mater can form out of different circumstances and, therefore, lead to different outcomes with respect to their attitudes about giving as alumni.

Most graduate students will have completed undergraduate studies in advance of pursuing an advanced degree. The experience of undergraduate studies can establish a different learning experience for graduate students. For instance, graduate students will likely have already developed a sense of identity and an intellectual understanding that usually develops in the formative years of college (Perry, 1968). While many undergraduates might be moving through Perry's nine stages of development, from dualistic right-wrong thinking to more nuanced and contextual thinking, most graduate students begin their advanced studies having already gone through that process of self-discovery and intellectual maturation. Graduate students are generally more sensitive to contextual considerations in their learning and more adaptable given their previous experiences (Jeheng, Johnson, & Anderson, 1993).

Men and women who continue their education on to graduate school typically do so after relatively positive experiences as undergraduates. Ethington and Smart (1986) analyzed data from the Cooperative Institutional Research Program (CIRP) sponsored by the American Council on Education and the University of California, Los Angeles to study the determinants for enrollment in graduate school. They made use of the CIRP's longitudinal study on student outcomes of the collegiate experience, where participants were surveyed as entering freshmen in the fall of 1971 and again in a follow-up survey in 1980. Data from the 2,873 men and 3,369 women who completed the relevant sections of the survey were evaluated using OLS regression

techniques to consider background characteristics, institutional characteristics, undergraduate experiences, degree attainment, and receipt of financial aid as factors leading toward pursuit of a graduate degree (Ethington & Smart, 1986).

Through their analysis, Ethington and Smart found that aside from an earned undergraduate degree and receiving financial aid to support graduate study, of the variables studied, the strongest effects on men and women's decision to pursue graduate study were from the extent of integration within the social and academic systems of their undergraduate institution (1986). This suggests that the more students were connected to the academic and social fabric of their undergraduate schools, the more likely they were to go on to graduate school. These findings are relevant to the present study in that they further demonstrate how graduate students and undergraduates differ, and that those differences could produce differing outcomes with respect to studies on alumni giving. Graduate students are, in essence, a subset of the undergraduate population, whereas not all undergraduates go on for graduate study, nearly all graduate students were once undergraduate students. This makes problematic the reliance on studies of the giving behavior of undergraduate alumni when predicting what factors influence the giving behavior of graduate alumni.

For graduate students pursuing professional or terminal masters degrees, such as the MBA, the length of time in school can be relatively short in comparison to undergraduate and doctoral studies. The opportunity for integration into the academic and social systems of the graduate institution is shorter, which could lead to differing levels of attachment for graduate students than undergraduates. And as the pursuit of a graduate degree often comes later in life, the objectives are generally more specialized than the undergraduate degree. Additionally, alumni from graduate programs tend to have higher levels of income than do alumni from

undergraduate programs alone, which can influence the giving behavior of those alumni. These factors, as well as potential family considerations, residential experiences, and financial costs (including opportunity costs to reenter academia), further illustrate the rationale for exploring the attitudes and behaviors of graduate students separately from undergraduate alumni in this study.

Okunade (1996), while identifying attributes of graduate alumni donors, suggests graduate alumni giving to be considered differently than undergraduate giving. In his study, he writes: “the profile of graduate school degree alumni donors reported here cautions researchers against using the findings of undergraduate degree alumni studies to make inferences about graduate school alumni” (Okunade, 1996, p. 224). Finding results that differed considerably from previous studies on undergraduate students, Okunade expressed the need to consider the two populations differently.

In Okunade’s graduate degree alumni study, findings differed from past undergraduate degree alumni study findings in a couple of ways. First, unlike the giving behavior of undergraduate alumni, which increases over time since graduation (Bruggink & Siddiqui, 1995; Clotfelter, 2001; Grant & Lindauer, 1986), graduate alumni were found to have a decreasing giving profile for several years after completing their first graduate degree. This decrease bottoms out later in life, but is extended by seven years for alumni earning a second graduate degree at the same institution (Okunade, 1996). Second, graduate alumni tend to accumulate more wealth over time than alumni of undergraduate programs. The wealth accumulation of graduate alumni allows for greater giving to the alma mater on average (Okunade, 1996).

Weidman, Twale, and Stein (2001), go one step further warning researchers that similar graduate programs and their students can differ dramatically. They caution that “[n]o two graduate and professional programs are identical, and no two students experience graduate or

professional school in quite the same way” (p. 2). In their studies of graduate students, Weidman, et al. (2001), describe the important role that socialization plays for graduate students in professional masters programs.

According to Weidman et al. (2001), “socialization” is one of the processes with which graduate students are brought deeper into their chosen profession’s norms, behaviors, and ethics. Graduate students are socialized into their professions by first being socialized into their graduate programs, where they are tasked formally (through academic study) and informally (through advising and mentoring) to understand the expectations, norms, and acceptable behaviors for graduate students. Students are also socialized into their programs and professions substantively and normatively (Weidman et al., 2001). Substantive socialization takes place by design at the curricular level via course work, research, and other activities academically focused on the substance of study, be it medicine, business, law, or engineering. Normative socialization occurs through the development of profession-specific values, ethics, and associations with fellow classmates and professionals. Weidman et al. (2001) argue that the normative aspect of socialization is often ignored within the literature, even though informal normative socialization of departmental and peer cultures helps students succeed in their new graduate environments.

Informal socialization always contains peer interaction as a core component, and group cohesiveness through sociocultural activities is essential for students practicing networking and interpersonal skills (Weidman et al., 2001). These kinds of networking and interpersonal skill development opportunities are critical for the professional development of graduate students. Internships, mentoring by professionals in the discipline, and opportunities to consider the ethical dimensions of the profession further enhance the socialization of students and prepare them for advanced roles in their field.

## **Distance Education**

This section provides a brief history of distance education in the United States and the technologies that have influenced the evolution of its delivery. A consideration of the online learning environment and research related to its impact on the student experience follows.

### **A Historical Perspective**

Today's notion of distance education elicits images of students using laptop computers; logging into a learning management system (LMS) or course management system (CMS) such as Blackboard, Canvas, Moodle, Sakai, Desire2Learn, etc.; making use of threaded-chats on discussion boards; accessing recorded videos of lectures and presentations from their instructors; and interacting with faculty and classmates through video chats using Skype-like programs such as WebCT, Zoom, or Google hangouts. Technology is a critical component in the delivery of today's distance education, as it has been throughout distance education's history.

Distance education is defined as institution-based, formal education where the learning group is separated, and where interactive telecommunications systems are used to connect learners, resources, and instructors (Simonson, Smaldino, Albright, & Zvacek, 2000). Meanwhile, the United States Distance Learning Association states that “[d]istance education takes place when a teacher and student(s) are physically separated, and technology (i.e., voice, video, data, or print) is used to bridge the instructional gap” (USDLA, 2012). These contemporary definitions of distance education rely on the technology of today. The history of distance education traces the history of advancements in major communication technologies as well.

Rail expansion in the late 1800s coincided with the largest correspondence program of the time offered by the University of Chicago (McIsaac & Gunawardena, 1996). Correspondence courses were delivered primarily through text materials. As postal deliveries became more



frequent, predictable, and widespread with increased transportation capabilities, more and more correspondence courses developed to reach less affluent and rural students (Bentz, 2010; Passerini & Granger, 2000).

Technology advancements of the 20<sup>th</sup> century brought about the use of radio, telephone, television, recorded audio, recorded audio and video, satellite communications, home computing (McIsaac & Gunawardena, 1996; Passerini & Granger, 2000), and, most recently, digital communications via the Internet to enhance distance education (Passerini & Granger, 2000). The technological developments of the past century supplemented the printed text materials previously relied upon for distance learning with greater interactive materials (Bentz, 2010) and have foreshadowed the recent pedagogical discussions about disruptive technologies and flipped classrooms (Passerini & Granger, 2000).

As it has advanced in the past, technologies useful to distance education likely will continue to advance in the future. As such, the ability to offer learning to students at a distance and the quality of that learning are also likely to trend upward. Historically, distance learning has been linked with traditional classroom education (Hiltz & Goldman, 2005) and has been tasked with providing learning opportunities that match those offered in traditional settings (Bentz, 2010; Simonson, 1995; Simonson, Schlosser, & Hanson, 1999). While distance education has generally been viewed as inferior to the traditional face-to-face learning environment, with one-third of all academic leaders believing that the learning outcomes for online education are inferior to those of face-to-face instruction (Allen & Seaman, 2011), many have argued recently that online learning is of equal, if not higher, quality than its traditional counterpart (Allen & Seaman, 2011; Eom, Wen, & Ashill, 2006; Fjermestad, Hiltz, & Zhang, 2005).

## **The Online Learning Environment**

A number of reasons have been cited for the growth of online educational opportunities, including the desire to provide or expand educational access to underserved individuals, effective management of classroom space and financial resources, institutional changes, and the need to capture emerging market opportunities presented by working adults and transient students (Allen & Seaman, 2011; Austin, 2009; Ginn & Hammond, 2012). Desai, Hart, and Richards (2009) found that online learning environments provide the benefits of convenience and interactive delivery of multimedia content. They also found that the “challenge for learning institutions and instructors was to provide a sense of community with constructive feedback and provide open forthcoming communications as well as recognizing membership and feelings of friendship, cohesion, and satisfaction among learners” (p. 333).

In their 2012 qualitative study, Boling, Hough, Krinsky, Saleem, and Stevens found that students participating in online courses rated social exchanges as the most favorite aspects of their course (p. 123.) The researchers also found that the social learning environment played a critical role in how online students learned and were motivated in class. Satisfaction among students was negatively impacted by disconnection between students and faculty, students and students, and faculty and other faculty (Boling, et al., 2012). The systems to support communication among students and faculty were critical to determining satisfaction with online programs.

Eom, Wen, and Ashill (2006), studied the factors that determined online student satisfaction and perceived learning at a US college in the Midwest. Their study focused on course structure, instructor feedback, self-motivation, learning style, interaction, and instructor facilitation as potential determinants of online learning. All six of these variables were found to

significantly affect student satisfaction, but only instructor feedback and learning style were found to affect perceived learning (Eom, et al., 2006, p. 215).

In 2007, Liu, Magjuka, Bonk, and Lee conducted a study with faculty and students of an online MBA program at a top-ranked, large US university in the Midwest. Their constant comparative, mixed-methods study considered if the online MBA students felt a sense of community and how sense of community related to student engagement, perceived learning outcomes, and satisfaction with the quality of education (Liu, et al., 2007, p. 10). The study also considered faculty strategies for communication and collaboration in their classes, and how students perceived the effectiveness of those strategies for building community online. Lastly, the study considered student and faculty perceptions of factors affecting the building of community online.

Liu, et al. (2007) found that roughly 90 percent of student respondents agreed that they felt part of a learning community ( $N=102$ ,  $M=4.27$ ,  $SD=0.72$ ) and 60 percent indicated that they never felt lonely while taking online classes. Twenty-five percent of respondents did, however, indicate that they felt isolated while engaged in the online course work (Liu, et al., 2007, p. 14). The study also found a positive correlation between the students' sense of community with their perceived learning outcomes and quality of education. The correlation between sense of community and with learning engagement was  $r= .62$ ,  $p <.01$ ; and with perceived learning was  $r= .60$ ,  $p <.01$ ; and with satisfaction with the quality of the classes was  $r= .61$ ,  $p <.01$  (Liu, et al., 2007, p. 14).

While most students in the Liu, et al. study never considered dropping out, of the 9 percent of students who indicated they had considered dropping out of the online MBA program, student intention to withdraw was negatively correlated with certain aspects of their experience

(2007). The correlation between intention to dropout and with perceived helpfulness of professor facilitation was  $r = -.51$ ; with sense of community was  $r = -.47$ ; with comfort in reading materials online was  $r = -.40$ ; and with engagement in learning was  $r = -.40$  (with  $p = .05$ ). As the level of helpfulness, sense of community, comfort with accessing written course materials online, and engagement in learning decreased, the level of intention to drop out of the program increased.

There have been a number of cautions raised about the enthusiasm to move courses and degrees online, but one caution of particular note comes from the research related to equivalency theory. Equivalency theory, developed by Simonson (1995), suggests that despite educators' desire to expand courses into the online learning environment, face-to-face courses are not ripe for transplantation to the online environment.

The theory is based on research that recognizes that distance learning cannot and likely should not attempt to replicate traditional face-to-face learning. Distance learning is fundamentally different, regardless of the use of interactive technologies. Equivalency theory advocates for course design that offers equivalent learning experience for students, even though the methods for learning might be different for distant and local learners (Simonson, 1999). According to Simonson, "students should have learning experiences designed and made available to them that are tailored for the environment and situation in which they find themselves. The equivalency approach is based on core values such as local control and personalized instruction that are held almost sacred in classical American education" (1999, pp. 7-8).

### **Sense of Community**

This section explores sense of community as a construct and describes the relationship between communities of participation and giving through the identification theory of charitable

giving. It also considers research that shows how communities formed in educational pursuits influence the learning of students participating in those communities. Lastly, this section describes four instruments developed for measuring sense of community, including the Classroom and School Community Inventory used in this study.

### **Development of the Construct**

Researchers, such as Henry J. S. Maine, have considered the existence of a “sense of community” as a real experience in human life since at least the mid-1800s (Hillery, 1982). Work conducted by Hillery in the mid-1950s influenced Glynn’s (1981) efforts to measure “real” and “ideal” levels of sense of community from a psychological standpoint (McMillan & Chavis, 1986). Doolittle and MacDonald (1978) developed the Sense of Community Scale to investigate the relationship between communication and sense of community in urban neighborhoods. Meanwhile Riger and Lavrakas’s (1981) work brought forward the conceptualization of the emotional aspect of the experience (McMillan & Chavis, 1986). But as McMillan and Chavis (1986) point out, while numerous studies to date contributed to the initial understanding of sense of community, none articulated a strong conceptual framework and none used measures based on an explicit definition of sense of community. Worse, they argued, many studies used dubious research techniques to make sense of data post hoc without prior theoretical or empirical justifications; and others sought to prove the validity of their measures by differentiation of communities, rather than consider commonalities among their participants (McMillan & Chavis, 1986). This criticism led McMillan and Chavis (1986) to develop their definition and theory of sense of community.

Community can come to mean a physical/geographic location as well as the quality of human relations (Gusfield, 1975, as cited by McMillan & Chavis, 1986). There can be territorial

communities and relational territories (McMillan & Chavis, 1986). As McMillan and Chavis (1986) note, communities of people were historically linked to their geography. Communities developed, based on proximity, to support members in meeting basic needs. Centered on interpersonal relationships and personal fulfillment, these relational communities rely on various forms of communication to build group cohesiveness, rather than physical proximity (Westheimer & Kahne, 1993).

In Seymour Sarason's *The Psychological Sense of Community: Prospects for a Community Psychology* (1974), Sarason offers a definition of a psychological sense of community as being a dependable relationship or network that is mutually supportive. Building on the work of Sarason, McMillan and Chavis (1986) defined community and identified four key tenets that underpin the development of community.

McMillan and Chavis's (1986) sense of community requires: membership (a feeling of belonging); influence (a sense of mattering); reinforcement (a sense that membership leads to support from the group); and shared emotional connection (a commitment and belief that members share in their histories, locations, time, and experiences). Their definition of sense of community is "... a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (McMillan & Chavis, 1986, p. 4).

Building on the work of McMillan and Chavis, the Sense of Community Index (SCI) was developed to determine the relative influence of each of the four elements of community on an individual's sense of community (Chavis, Hogge, McMillan, & Wandersman, 1986). Data gathered using the SCI demonstrated predictability of an overall sense of community using McMillan and Chavis' four elements of community (Chapman, 2012).

In 1996, some 20 years after he first authored his theory of sense of community, which was subsequently used to develop the definition and SCI model, McMillan returned to the concept to extend the principles. McMillan (1996) maintains the four tenets, but recasts them with membership rearranged under “spirit,” influence under “trust,” reinforcement under “trade,” and shared emotional connection under “art.” His updated view sees “sense of community as a spirit of belonging together, a feeling that there is an authority structure that can be trusted, an awareness that trade, and mutual benefit come from being together, and a spirit that comes from shared experiences that are preserved as art” (McMillan, 1996, p. 315).

### **Identification Theory of Charitable Giving**

Identification theory of charitable giving (Schervish & Havens, 1997) seeks to explain the social processes leading to charitable giving while rejecting the theory of altruism and selflessness. Schervish and Havens credit the 1976 work of Gary S. Becker in finding that altruism “may appear to be self-less [but] is, in the broader empirical context, actually grounded in a form of mutual self-interest” (1997, p. 237). Schervish and Havens contend that charitable acts such as giving are not acts of selflessness, but, at best, are self-interested acts that overlap and conjoin with the interests or needs of others. From his earlier work interviewing 130 donors on wealth and philanthropy, Schervish found that donors did not give because of altruism or self-interest, but they gave because of a commitment born of empathetic identification with the needs of others (Schervish & Havens, 1997).

Schervish and Havens’ identification theory of charitable giving is further informed by the work of Mike Martin (1994, as cited in Schervish & Havens, 1997), who suggests that philanthropy unites people in caring relationships to the mutual benefit of the givers and receivers, and where such relationships take on responsibilities and are often formed via face-to-

face interactions, similar to those with family and friends. Furthermore, Martin suggests that philanthropy, as a relationship, is generated most clearly via participation in community (Schervish & Havens, 1997, p. 239). In developing their theory, Schervish and Havens cite Jackson, Bachmeier, Wood, and Craft (1995), who suggest that the caring relationships of philanthropy are products of the sense of being connected to a group or organization and to an understanding of the needs of others in the group, which, in turn, is central to giving. In their study of 800 Indiana residents, Jackson et al. (1995) found that participation in religious and voluntary group activities was the key determinant of giving (Schervish & Havens, 1997).

Schervish and Havens describe their identification model as being relational (1997). They explain that “charitable giving derives from identification, identification derives from encounter, encounter derives from relationship, and relationship derives from participation” (1997, p. 240). Communities of participation can be formal, such as in a school, or informal, such as in a neighborhood; they can demand varying degrees of activity from members; members can belong to communities of participation out of choice or out of circumstance; and many communities of participation require or request members to donate time and/or money (Schervish & Havens, 1997).

### **Learning Communities**

Learning communities are typically recognized as a subset of community, as a specific type of community (Chapman, 2012). According to Haythornthwaite, Kazmer, Robins, and Shoemaker (2000), the key to building a successful online course is moving the student from the position of an isolated learner to that of a member of a learning community. The strong interpersonal ties shared by community members increase the willingness to share information and resources, setting the stage for collaborative learning (Haythornthwaite, et al., 2000).



Research has shown that strong communities yield many positive outcomes beneficial to students engaged in higher education. In Haythornthwaite, et al. (2000), researchers investigated how online learners develop and sustain personal relations with one another, what relationships and connections support them through their course of study, and how student experiences affect creation of a sense of community. In a review of related work, Haythornthwaite, et al. (2000) found that strong online learning communities foster higher levels of communication, greater peer-to-peer support, stronger commitment to shared goals, greater cooperation among students, and higher levels of satisfaction with collaborative work (Argyle, 1991; Bruffee, 1993; Chidambaram & Bostrom, 1997; Dede, 1996; Gabarro, 1990; Harasim, Hiltz, Teles, & Turoff, 1995; McGrath, 1984; Wellman, 1999, as cited by Haythornthwaite, et al., 2000, p. 2). Research also indicates that students experience a greater sense of joy and well-being, and have a larger and more responsive peer support group when difficulties arise (Hammer, 1981; Haines & Hurlbert, 1992; Haines, Hurlbert & Beggs, 1996; House, 1981; van der Poel, 1993; Walker, Wasserman & Wellman, 1994, as cited by Haythornthwaite et al., 2000, p. 2).

In general, learning communities are designed to facilitate shared knowledge (structuring courses such that students engage in an interdisciplinary learning experience), shared knowing (constructing knowledge together such that all community members' perspectives and knowledge is part of the learning process), and shared responsibility (students are responsible to each other and mutually dependent in the learning process) (Chapman, 2012; Tinto, 2003).

### **Measuring Sense of Community**

There are several instruments for examining sense of community. Three instruments examined below are the Community of Inquiry (CoI) framework by Garrison, Anderson, and Archer (2000); Chavis, Lee, and Acosta's (2008) Sense of Community Index 2 (SCI-2); and

Rovai's (2002b) Classroom Community Scale (CCS). The fourth instrument explored, the Classroom and School Community Inventory (CSCI), (Rovai, Wighting, & Lucking, 2004) is an extension of Rovai's Classroom Community Scale (CCS). The CSCI is applicable for online as well as face-to-face traditional settings.

**Community of Inquiry.** To develop a comprehensive framework to guide the research and practice of online learning, Garrison, Anderson, and Archer (2000) created the Community of Inquiry (CoI) framework consisting of three elements: social, teaching and cognitive presence. The CoI also offered categories and indicators to define each presence and to guide researchers' coding of transcripts. This framework is rooted in the work of John Dewey and follows constructivist approaches to learning in higher education (Garrison & Arbaugh, 2007). This framework has been used extensively by the online learning community and has provided insights and methodology for studying online learning (Garrison & Arbaugh, 2007; Garrison, Cleveland-Innes, Koole, & Kappelman, 2006).

Social presence is represented by affective expression, open communication, and group cohesion. Teaching presence encompasses instructional design and organization, facilitating discourse, and direct instruction. Cognitive presence is described as a four-phase model that includes a triggering event, exploration, integration (construction), and resolution (Chapman, 2012). Based on the notion that a sense of community is associated with perceived learning, Garrison et al., (2000) sought to develop a model representing all elements of community, not just social presence which had been the primary focus of early studies of community in online education (Chapman, 2012).

**Sense of Community Index 2.** The Sense of Community Index 2 (SCI-2) follows on the original Sense of Community Index by Chavis, Florin, Perkins, Prestby, Rich, and Wandersman

(1990). The Sense of Community Index 2 (SCI-2), created by Chavis, Lee, and Acosta (2008), responds to criticisms regarding the low and inconsistent reliability of the original SCI for the four subscales of the McMillan and Chavis sense of community theory (Chavis, et al., 2008). The SCI-2 also addresses concerns about the original Sense of Community Index's adequacy as a cross-cultural measure (Chavis, et al., 2008).

Via a study of immigrant integration in a western US state, the authors created a 24-item Sense of Community Index version 2, but unlike the earlier version, it was able to cover all the attributes of a sense of community described in the original theory (Chavis, et al., 2008). A Likert like scale was developed to replace the original dichotomous True-False format, which lacked variability. After pilot testing and revision, the SCI-2 was used within a larger survey of 1800 immigrants and community members in 19 geographic areas across Colorado. The analysis of the SCI-2 showed similar results as the pilot testing of the instrument with a very reliable measure ( $\alpha = .94$ ). The subscales also proved to be reliable with coefficient alpha scores of .79 to .86 (Chavis, et al. 2008).

**Classroom Community Scale.** Building on McMillan and Chavis' (1986) definition of community, Rovai (2001) proposed a definition of classroom community designed for participants specifically within the educational sphere (Dawson, 2006). Rovai's definition described sense of community as "a feeling that members have of belonging, a feeling that members matter to one another and to the group, that they have duties and obligations to each other and to the school, and that they possess shared expectations that members' educational needs will be met through their commitment to shared goals" (p. 34). According to Rovai (2002a), classroom community can be defined by the following four dimensions: spirit, trust, interaction, and commonality of expectations and goals (learning).

Spirit expresses the positive feelings of cohesion, bonding, and enjoyment of interaction with the community (Rovai, 2002a). Trust consists of credibility and benevolence (Doney & Cannon, 1997), whereby credibility means a mutual reliance among members of the community, and benevolence equates to motivation to care for and actively support others in the community. Interaction is distinguished by its quality and not its quantity in fostering community in a classroom. Between task-driven (instructor-generated completion of assignments) and socio-emotional-driven interaction (self-generated socializing), socio-emotional-driven interaction is more complementary to the building of classroom community (Rovai, 2002a). The common expectations and goals dimension is expressed as learning, whereby learning represents the desired and valued outcome of the community and whereby the community's goals are met through active participation (Rovai, 2002a).

The Classroom Community Scale (CCS), while developed for use with postsecondary students taking online courses can be administered to other populations, to include students taking courses in a traditional classroom setting (Rovai, 2002c). The instrument was not constructed to limit its use to a distance education population. The instrument generates an overall classroom community score as well as two subscales: connectedness (cohesion, spirit, trust, and interdependence) and learning (common expectations and goals) (Rovai, 2002c). The 20-item Classroom Community Scale is an instrument to assess graduate students' sense of classroom community. Measurement of classroom community adds a useful tool that can be used in future research to measure the effectiveness of course design and instructional delivery changes meant to promote classroom community and reduce feelings of isolation (Rovai, 2002c).

**Classroom and School Community Inventory.** Following the development of the Classroom Community Scale (CCS), Rovai expanded his instrument with consideration for both

the classroom and larger school environment in measuring the sense of community construct. The Classroom and School Community Inventory (CSCI), measures classroom community and school community using 10 self-report items for the classroom scale and 10 self-report items for the school community form (Rovai, Wighting, & Lucking, 2004). Self-reporting items measuring the classroom community include statements such as, “I feel connected to others in this course,” whereas self-reporting items measuring the school community include statements such as, “I feel close to others at this school.” The inventory provides a 5-point Likert scale of potential responses consisting of: strongly agree, agree, neutral, disagree, and strongly disagree. The total possible scores range from 0 to 40 for each of the classroom community and school community scales, and higher scores reflect a stronger sense of community. Given that the focus of this study goes beyond an individual course, and is instead interested in the overall programmatic experience of students, only the second part of the CSCI, the school community portion, was utilized in the present study.

In their study of 341 middle school, high school, and university students, Rovai, Wighting, and Lucking (2004) provide evidence of both CSCI validity and reliability. Reliability analysis was conducted using Cronbach’s coefficient alpha in order to establish the internal consistency characteristics of the scale. Instrument stability was evaluated using pretest and posttest measurements with a 2-week interval between measurements. Using Cronbach’s coefficient alpha, internal consistency estimates of reliability for the school scale was .83. Stability estimates were calculated using Pearson  $r$  correlation coefficients and a 2-week interval between pretest and posttest measurements. Stability for the CSCI school form was .91. According to Rovai et al. (2004), the school form of the CSCI possessed a Flesh–Kincaid grade level score of 5.8 and a Flesh reading ease score of 74.5.

Subsequent studies using the school form of the CSCI found similar results for internal reliability. In Wighting, Liu, and Rovai's (2008) study of 320 university students, the coefficient alpha for school community was .85. In Wighting, Nisbet, and Spaulding's (2009) study of 150 high school students, the overall internal consistency of the school form measure using Cronbach's alpha was .84. The internal consistency coefficients for the social community and learning community subscales of the school form were .87 and .73 respectively (Wighting, et al., 2009, p. 65).

### **Summary**

A review of the literature reveals that community and sense of community are defined by the supportive nature of their membership (McMillan & Chavis, 1986; Sarason, 1975). Communities develop to support members in meeting their basic needs, and sense of community is built on a network of mutually supportive members. Centered on interpersonal relationships and personal fulfillment, these relational communities rely on various forms of communication, rather than on physical proximity, to build group cohesiveness (Westheimer & Kahne, 1993). This reliance on communication to build community beyond physical boundaries is directly applicable to the population of this study.

Accordingly, sense of community can develop among students and faculty in close physical environments such as a college campus, within and outside of the classroom. But sense of community can develop when individuals are not physically close through effective communication, to include students and faculty who interact via electronic communications and in online course environments. Schervish and Havens (1997) assert that communities exist in formal settings, such as colleges and universities, and can require or request members to donate time and/or money. Martin (1994) also found that philanthropy unites community members in

promoting benefits that are enjoyed by both donors and recipients. These caring relationships of philanthropy are the products of being connected to a group or organization and to an understanding of the needs of others in the group (Jackson, et al., 1995), and they can develop in close proximity and at a distance.

A subset of community within higher education, learning communities facilitate shared knowledge, shared knowing, and shared responsibility (Chapman, 2012; Tinto, 2003) yielding positive outcomes for students (Haythornthwaite, et al., 2000). For online students, successful membership in a learning community means moving from remote isolation to inclusion through strong interpersonal ties. In turn, strong online learning communities foster higher levels of communication, greater peer-to-peer support, stronger commitment to shared goals, greater cooperation among students, and higher levels of satisfaction with collaborative work (Haythornthwaite, et al., 2000). These outcomes suggest higher levels of sense community, which can lead to greater levels of philanthropy.

As the construct of sense of community has developed, instruments to effectively measure sense of community have developed as well. This study sought out an effective tool to measure sense of community experienced by students in graduate programs offered face-to-face as well as online. With evidence of validity and reliability, and applicable for online as well as face-to-face traditional settings, the Classroom and School Community Inventory (CSCI) (Rovai, Wighting, & Lucking, 2004) was ultimately chosen for use in this study.

After identifying an appropriate tool for measuring sense of community among MBA alumni, this study considered levels of sense of community as a factor in the giving behavior and attitudes toward giving of CSU MBA alumni.

## CHAPTER 3: METHOD

This chapter provides an overview of the research design, questions, participants and sites, survey instrument, measures, procedure and data analysis used for this study. As stated in Chapter One, the purpose of this study was to examine factors that influence financial giving behaviors and attitudes toward giving by traditional face-to-face MBA alumni and MBA alumni who studied at a distance/online. After a review of the literature, the following research questions were developed to guide this study.

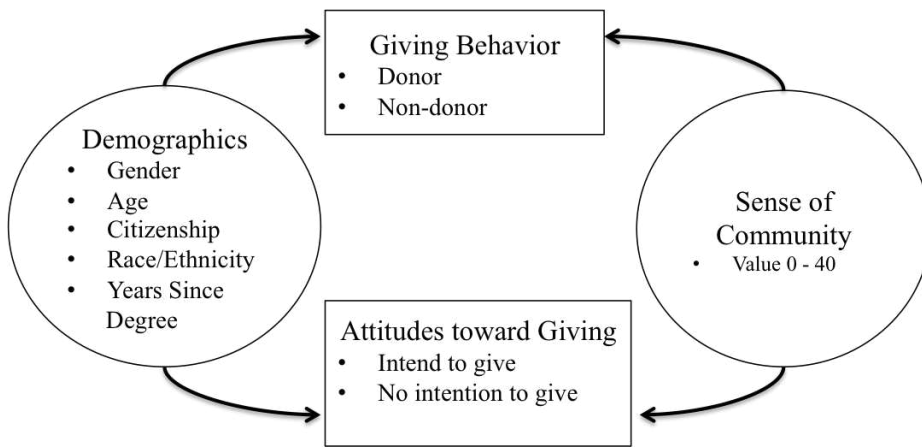
1. How do demographic characteristics (e.g., gender, age, years since graduation) of online and traditional MBA alumni relate to their donor behaviors and attitudes toward giving?
2. How does the sense of community experienced by online and traditional MBA students relate to their donor behaviors and attitudes toward giving as alumni?
3. How do alumni who pursued their MBA online differ from alumni who pursued their MBA traditionally (face-to-face) regarding demographic characteristics, sense of community experienced, and donor behavior and attitudes toward giving?

### **Research Design and Rationale**

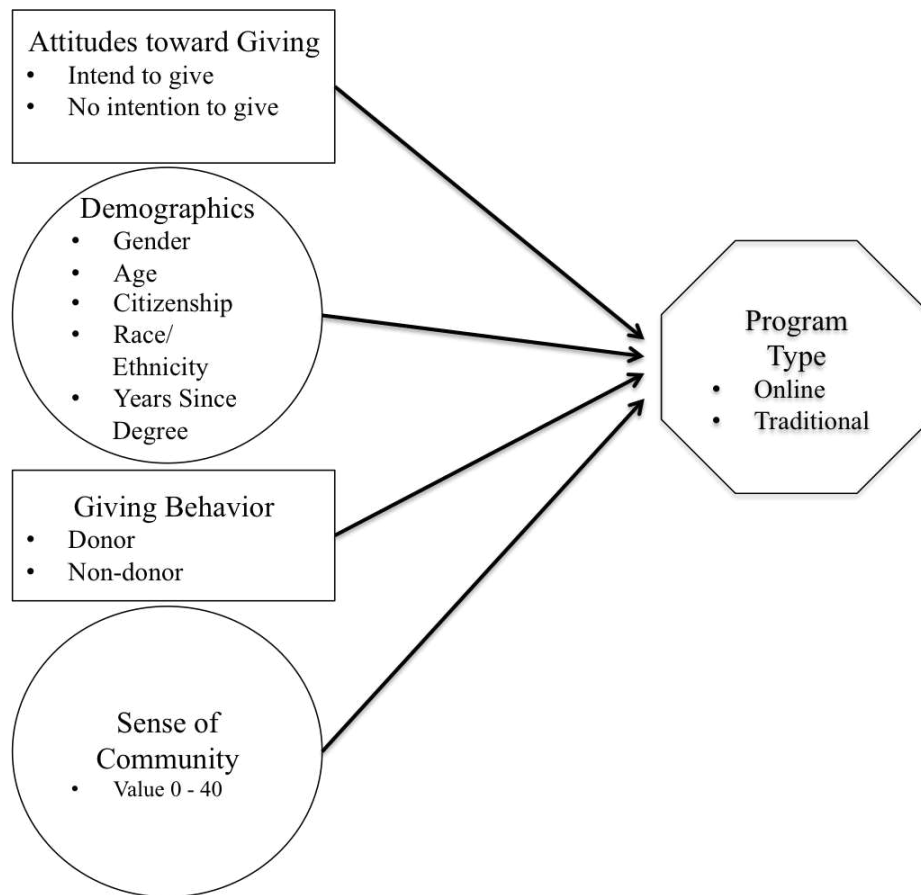
This quantitative study utilized a non-experimental cross-sectional survey method design (Creswell, 2009). The decision to use a survey research design was based on a lack of available data on the giving behavior and attitudes of alumni of MBA programs offered online and face-to-face, and due to the need to measure experiences and behaviors of potential donors. The use of the Classroom and School Community Inventory (CSCI) to measure alumni's sense of community as part of this study also made use of a self-reporting survey appropriate. Numeric data was collected using a web-based survey and analyzed using logistic regression and



independent samples test statistical methods. The goal was to identify the relationship between selected variables and sense of community on giving behavior and attitudes among alumni of MBA programs offered online and face-to-face. The relationship between sense of community, alumni demographics and donor behavior and attitudes is explored (see *Figure 1* and *Figure 2*). The rationale for employing the quantitative approach is that the analysis of the quantitative data responds to the research problem, by exploring factors that might predict alumni giving behavior and attitudes.



*Figure 1.* Relationship model between independent predictor variables and dependent outcome variables for research questions 1 and 2.



*Figure 2.* Relationship model between independent predictor variables and dependent outcome variables for research question 3.

### **Participants and Site**

This study sought to understand how the experiences and attributes of alumni from MBA programs influenced their giving behavior and attitudes. In particular, this study sought to better understand the behavior and attitudes of alumni who pursued their MBA online and MBA alumni who pursued their degree traditionally via face-to-face instruction. As such, this study surveyed alumni who were engaged in a MBA course of study offered face-to-face or at a distance online from an institution offering comparable educational opportunities.

The site of this study was a large public research institution in the western United States with an AACSB accredited business school (Colorado State University). This institution offers a MBA degree that can be pursued at a distance via the Internet, as well as in a traditional face-to-

face format. These two groups of MBA students comprise the “professional” MBA degree program at Colorado State University (CSU). Alumni from any program other than the “professional” graduate program offered by the College of Business were excluded from this study.

The site of this study was selected based on the opportunity to study the behavior and attitudes of alumni who pursued the same MBA content offered at the same institution via online and face-to-face delivery. The online MBA track offered at this university is marketed as being the equivalent to its traditional MBA track, and, in fact, uses video broadcast and recordings from the traditional MBA courses as the main source of content for the online MBA students. The opportunity to study two alumni groups who have experienced identical or nearly identical academic content allows for better consideration of the student experience, including a comparison of the extracurricular variables associated with this study.

Students pursuing the traditional and online MBA at CSU have access to advisors and faculty members throughout their course of study. Online MBA students are invited to the same on-campus orientations and commencement ceremonies to which traditional MBA students are invited. The College of Business offers professional development programming in support of students throughout the academic year, however, these activities are not specifically arranged by the MBA program, nor are they specifically targeted to support the needs of traditional or online MBA graduate students (John Weiss, personal communication, October 23, 2015). Instead, they are most often offered as activities for undergraduate students of the College of Business in which MBA students may choose to participate. At present, there is no organized effort to provide co-curricular or extra-curricular activities to Colorado State University’s MBA students

in either the traditional or online programs (John Weiss, personal communication, October 23, 2015).

The Office of Advancement at CSU maintains the university's alumni records, including the contact information for MBA alumni. Repeated requests for MBA alumni contact information, as well as requests for dissemination of the survey instrument to MBA alumni through officials at CSU supporting this study were denied by CSU's Senior Vice President of Advancement. No portion of the alumni database, including contact information, is made available for research purposes and the database is "strictly used for development purposes" (Shay Webb, personal communication, February 10, 2016).

To respond to the research questions of the study, and due to a lack of existing data, collecting data from alumni was necessary. A search for an alternative method for reaching the CSU MBA alumni led to the "Colorado State University MBAs" LinkedIn group. LinkedIn is a professionally oriented online social networking site that allows users to create personal profiles and make connections to other individual users and/or groups of users, which may represent real-world professional relationships or common membership to affinity groups ("LinkedIn," n.d.). The Colorado State University MBAs LinkedIn group is described as an online networking group for Colorado State University on-campus and online MBA students and alumni (<https://www.linkedin.com/groups/52333> retrieved February, 15, 2016). The online group is moderated by the CSU College of Business but is an entity external to Colorado State University. The data contained within the group is not the property of Colorado State University. The College of Business has allowed current students, faculty, administrators, and others like the researcher to join the alumni group as members. The structure of the online group, unlike a searchable database, limits a member's ability to gather basic descriptive statistics for the group.

These limitations prevent knowing precisely how many members of the group are MBA graduates versus any other status, and how many members who are graduates pursued their MBA online versus the traditional face-to-face format. The number of members of this LinkedIn group at the time this study was launched was 2,446 (<https://www.linkedin.com/groups/52333> retrieved November 23, 2016).

As moderators and “owner” of the LinkedIn group with special communication privileges, the Colorado State University College of Business Career Management Center had the ability to email members of the Colorado State University MBAs LinkedIn group. Instead of distributing the survey directly, the CSU College of Business granted the researcher special permissions through the LinkedIn group that allowed for the distribution of the research survey to the intended population. The study made use of a convenience sampling approach determined first by the membership of alumni to the LinkedIn group and, second, by the willingness of individual MBA alumni to participate in the study.

The intended population was MBA alumni from Colorado State University’s College of Business, and the study targeted traditional and online MBA alumni. To eliminate potential confounding variables, students who pursued any other academic program at the same institution as the MBA were excluded from the analysis. Responses to survey questions about the type of MBA program pursued (traditional professional, online professional, or other) determined which other participants were excluded from the sample for not meeting the intended sample criteria.

### **Data Collection**

A survey instrument consisting of 43 questions was used to capture the data from the participants of this study. The survey consisted of 23 questions related to the participants’ demographic characteristics, MBA program experiences, and giving behavior and attitudes.

Depending on responses to the initial 23 questions, there were 10 additional sub-questions possible. The remaining portion of the survey consisted of 10 questions from the second half of the Classroom and School Community Inventory (CSCI), developed by Rovai, Wighting, and Lucking (2004). The lead author responsible for creating the CSCI instrument gave permission for use of the CSCI in this study (see Appendix B). Slight modifications to the CSCI to match appropriate language for the setting and delivery of the instrument in this study were made and were approved by the CSCI's lead author.

The Classroom and School Community Inventory (CSCI) measures classroom community and school community using 10 self-report items for the classroom scale and 10 self-report items for the school community form (Rovai & Wighting, 2005). Self-reporting items measuring the classroom community included statements such as, "I feel connected to others in this course," whereas self-reporting items measuring the school community included statements such as, "I feel close to others at this school." The inventory provided a 5-point Likert scale of potential responses consisting of: strongly agree, agree, neutral, disagree, and strongly disagree. The total possible scores range from 0 to 40 for each of the classroom community and school community scales, and higher scores reflect a stronger sense of community. Given that the focus of this study went beyond an individual course and was, instead, interested in the overall programmatic experience of students, only the second part of the CSCI, the school community portion, was utilized in the present survey. Additionally, the term "school" was replaced with "MBA program" or "program" in the CSCI to better locate the alumni experiences. Finally, the verb tenses of the CSCI were changed to past tense to reflect the current status of the participants as alumni and not current students.

The survey used in this study contained 23 questions related to alumni demographics, donor behavior and attitudes toward giving, and MBA program activities information. Demographic data included information such as alumni's gender, age, and year of graduation. Donor behavior data included information such as, status as a donor or non-donor to the MBA institution, amount of giving, and giving history with other organizations. Data on alumni attitudes toward giving included information such as, intention to make a future gift, preference for future gift type (e.g., stocks, cash, bequest), and amount of future gift.

The survey instrument was sent via email to the sample population through the LinkedIn interface and consisted of a Qualtrics web-based survey program. Participants were able to access the survey through a web-link provided in the email, and, to reduce response rate errors, follow-up reminders were sent at predetermined intervals to encourage completion of the survey. Two e-mail reminders were sent out, the first reminder sent after one week, and the second reminder sent two weeks after the initial distribution of the survey invitation. The survey remained open for three weeks.

An informed consent statement was included in the recruitment email. The recruitment e-mail guaranteed respondent rights and acknowledged that participant rights would be protected. A statement relating to informed consent was also included in the web survey. The anonymity of participants is protected by the use Qualtrics' Anonymize Responses option through the web survey software. Participants were informed that summary data would be included in the research study and made available to the professional community, but that in no way would it be possible to trace responses to individuals. Using the Qualtrics system enabled efficient data migration into the IBM Statistical Package for Social Sciences (SPSS) software.

## Measures

The research questions were designed to explore the relationship between the demographic characteristics and experiences of traditional and online MBA alumni and their financial giving behaviors and attitudes toward giving. The relationship between sense of community, alumni demographics, donor behaviors and attitudes, and program type (online vs. traditional) was also explored.

Data collection through an online survey captured the independent and dependent variables associated with this study. For research questions 1 and 2, giving behavior and attitude toward giving were the primary dependent variables, or presumed outcome or criterion of the independent variables (Gliner, Morgan, & Leech, 2009). Demographic data and sense of community were the independent variables of research questions 1 and 2. Program type (online vs. traditional) was the dependent variable for question 3, with demographic data, sense of community, and donor behavior and attitude toward giving serving as the independent variables. Additional questions related to participants' background, experiences, attitudes, and behavior were collected for descriptive analysis. Individual descriptions of the dependent and independent variables follow.

**Giving behavior:** A dichotomous variable in the study, giving behavior was categorized based on whether the response from the survey question, "Have you made a financial gift to your graduate (MBA) institution?" was yes (donor), or no (non-donor). Giving behavior served as a dependent and independent variable in this study respective of the research question explored.

**Attitude toward giving:** A dichotomous variable in the study, attitude toward giving applied to the non-donor subset of the sample and was categorized based on whether the response from the survey question, "do you intend to make a future gift to your graduate (MBA)



institution?” was yes (intend to donate), or no (no intention to donate). Attitude toward giving served as a dependent and independent variable in this study respective of the research question explored.

**Sense of community:** An independent variable in the study, sense of community was determined by a self-reporting of ten items from Rovai, Wighting and Lucking’s (2004) Classroom and School Community Inventory (CSCI). The ten items comprise the second half of the CSCI instrument and are designed to measure the sense of community in the school (or, in this case, the MBA program) as experienced by the participant of the study. The ten items included statements such as, “I had friends in this program to whom I could tell anything,” and “I felt that I could rely on others in this program.” The inventory provided a 5-point Likert scale of potential responses consisting of: strongly agree, agree, neutral, disagree, and strongly disagree. The total possible scores range from 0 to 40 for each of the classroom community and school community scales, and higher scores reflect a stronger sense of community.

A review of the literature has helped to focus this research to choose demographic predictors of giving consistent with prior studies into graduate/MBA alumni giving. Additional variables relevant to the format of the educational experience (online vs. traditional) were considered as well. The demographic variables in the study directly follow.

**Program type:** An independent variable in the study that denoted the delivery type of the MBA program the participant completed, program type responded to the survey question, “What type of MBA program did you pursue?” Based on responses and at the exclusion of participants who indicate the “other” degree type option, the three levels of program type, CSU’s Professional Traditional MBA; CSU’s Professional Online MBA; and Other business

degree/program offered by CSU, were transformed into a dichotomous variable consisting of traditional or online.

**Gender:** A dichotomous independent variable in the study, gender was categorized based on whether the response from the survey question, “Please indicate your gender,” was male or female.

**Age:** A continuous independent variable in the study, age referred to the self-reported age in years of each participant at the time of taking the survey.

**Citizenship:** A nominal independent variable, citizenship was categorized based on the response to the survey question, “What is your citizenship?” Four levels of response were available: US Citizen; US Permanent Resident; Other, non-US Citizen.

**Race/ethnicity:** A nominal independent variable, race/ethnicity was categorized based on the response to the survey question, “If US Citizen, what is your race/ethnicity?” Participants who did not self-report as US Citizens were not asked this question. Response choices for race/ethnicity were as follows: American Indian or Native Alaskan; Asian; Black or African American; Caucasian/White non-Hispanic; Hispanic or Latino; Native Hawaiian or other Pacific Islander; Multiracial.

**Years since degree awarded:** A continuous independent variable, years since degree awarded was derived from the survey question, “What year was your MBA awarded?” The years since degree awarded value was calculated arithmetically by taking the year in which the survey was offered (2017) and subtracting the degree year given by each participant in response to the survey question.

## Validity and Reliability

In their study of 341 middle school, high school, and university students, Rovai, Wighting, and Lucking (2004) provide evidence of both CSCI validity and reliability. In developing the Classroom and School Community Inventory, the authors considered the factor structure of the school community items (part two of the CSCI) and evaluated them for “simple structure, parsimony, and psychological meaningfulness using maximum likelihood factor analysis with direct oblimin rotation” (Rovai et al., 2004, p. 270). The items that remained in the CSCI had a loading of 0.30 or higher on a factor, and were at least 0.15 higher than loadings on other factors (Rovai, et al., 2004). A confirmatory factor analysis was also conducted using the 20 school community items along with the 20 items that comprise the Classroom Community Scale (Rovai, 2002c) to confirm that items loaded only on the classroom or school scales. “The criterion used to evaluate simple structure was that each item loaded unambiguously on only one factor with a loading of 0.60 or higher” (Rovai, et al., 2004).

Reliability analysis was conducted using Cronbach’s coefficient alpha in order to establish the internal consistency characteristics of the scale. Instrument stability was evaluated using pretest and posttest measurements with a 2-week interval between measurements. Using Cronbach’s coefficient alpha, internal consistency estimates of reliability for the school scale was .83. Stability estimates were calculated using Pearson *r* correlation coefficients and a 2-week interval between pretest and posttest measurements. Stability for the CSCI school form was .91. According to Rovai et al. (2004), the school form of the CSCI possessed a Flesh–Kincaid grade level score of 5.8 and a Flesh reading ease score of 74.5.

Subsequent studies using the school form of the CSCI found similar results for internal reliability. In Wighting, Liu, and Rovai’s (2008) study of 320 university students, the coefficient

alpha for school community was .85. In Wighting, Nisbet, and Spaulding's (2009) study of 150 high school students, the overall internal consistency of the school form measure using Cronbach's alpha was .84. The internal consistency coefficients for the social community and learning community subscales of the school form were .87 and .73 respectively (Wighting, et al., 2009, p. 65).

### **Data Analysis**

Survey results were reviewed for errors and missing data. Responses from participants who did not meet the scope of the study were excluded from the analysis. Descriptive statistics were run to determine the makeup of the available sample. To account for missing data, multiple imputation, a statistical technique developed by Rubin (2004) to address missing entries, was employed via IBM SPSS. Cases with missing entries related to race/ethnicity, citizenship, program type, and employment status were transformed using multiple imputation to account for five incidents of missing entries.

To respond to the three main research questions of this study logistic regression analysis was employed using IBM SPSS. Logistic regression is appropriate for research questions where the dependent variable is dichotomous and independent variables are continuous or dichotomous (Morgan, Leech, Gloeckner, & Barrett, 2013). All three of the research questions had dependent variables that were dichotomous and independent variables befitting logistic regression. For descriptive statistical analysis, Chi-square, and *t* test statistics were employed using IBM SPSS.

## CHAPTER 4: RESULTS

Chapter four provides findings for this research examining the relationship between personal characteristics and experiences, and financial giving behaviors and attitudes toward giving of Colorado State University MBA alumni who pursued their degrees online or via traditional face-to-face instruction. The study was comprised of data gathered via an online survey from members of a private LinkedIn group created for CSU MBA alumni and managed by the CSU College of Business.

The first section presents the survey results and descriptive statistics of participants. Results of tests of reliability for the sense of community instrument (CSCI) are presented in the second section. The third section presents the results of the research questions.

### **Survey Results**

After obtaining permission and access from the CSU College of Business to utilize the communication functions of the private LinkedIn group, the researcher sent an email invitation to all members of the private CSU MBA Alumni LinkedIn group to participate in the online research survey. Invitations were sent to 2,446 members, soliciting responses from graduates of the CSU MBA. It was known that the membership of the LinkedIn group also included individuals who had not fully graduated from CSU's MBA program, and others who were not ever CSU students but who had nonetheless been granted access to the group (e.g., human resource recruiters). The number of members of the group who were not graduates of CSU's MBA program was unknown at the time of the solicitation and questions designed to confirm the eligibility of participants for the student were employed via the survey. At the conclusion of the

data collection time period, 142 anonymous responses were recorded via the Qualtrics online survey tool.

When eligibility questions, such as, “Please indicate your affiliation with Colorado State University” and “Did you pursue any other academic program from the same institution as your MBA program?” were reviewed, 52 responses were excluded from analysis and 90 valid responses remained to form the sample for this study.

### **Participants**

Because the makeup of the sample pool (CSU MBA Alumni LinkedIn group) is largely unknown, *t* tests were performed to compare the means of certain demographic data collected via the survey to specific demographic data of the population of CSU MBA students from the years 1991 to 2015 made available through the Colorado State University Office of Institutional Research. Comparing the means of the collected sample data against the available enrollment data available through the CSU Office of Institutional Research provided the opportunity to determine whether the sample is representative of the population, and whether the results of the survey might be impacted by sample bias. Results from *t* tests conducted on available population data and sample data for this study are presented in Table 4.2. Results of the *t* tests indicate no statistically significant differences in means across the variables, which suggests that the sample is representative of the population

Table 4.1

*Demographics of a Sample of 90 CSU MBA Alumni*

Variable	<i>n</i>	%
Race/Ethnicity		
Asian	1	1.1
Black/African American	4	4.4
Hawaiian/Pacific Islander	1	1.1
Hispanic/Latino	5	5.6
Multi-racial	2	2.2
Native American	1	1.1
White/Caucasian non-Hispanic	66	73.3
Missing	1	1.1
Gender		
Female	18	20.0
Male	72	80.0
Citizenship		
US Citizen	80	88.9
US Perm Resident	5	5.6
Non-US Perm Res	4	4.4
Missing	1	1.1
Program type		
Online	62	67.8
Traditional, Face-to-Face	27	30.0
Missing	2	2.2
Student status		
Full-time	34	37.8
Part-time	56	62.2
Employment status		
Part-time	2	2.2
Full-time	84	93.3
Unemployed	3	3.3
Missing	1	0.2
CSU employed	12	13.3
CSU dependent(s)	1	1.1
Participated in CSU alumni activities	28	31.1
Participated in MBA orientation	48	53.3
Typically donate to causes	73	81.1

**Race/ethnicity.** Ninety anonymous cases from eligible respondents were downloaded from Qualtrics and loaded into IBM SPSS for evaluation and analysis. Fourteen of the respondents self-identified as non-White US citizens, representing 15.56% of the sample. Sixty-six respondents self-identified as White/Caucasian non-Hispanic US citizens, representing 73.3% of the sample. Table 4.1 lists the racial/ethnic identification percentages of all respondents of the study.

**Citizenship.** Nine respondents self-identified as non-US citizens, representing 10% of the sample. Approximately 90% of the sample self-identified as US citizens.

Table 4.2

*Comparison of Sample (n=90) to the Population on Key Characteristics*

Characteristic	Population <i>M</i>	Sample <i>M</i>	<i>SD</i>	<i>t</i>	<i>Df</i>	<i>p</i>
White/Caucasian	.70	.74	.440	.891	88	.375
Female	.26	.20	.402	-1.472	89	.145
US citizen	.88	.90	.303	.525	88	.601
Online student	.68	.69	.464	.368	87	.718

*Note.* Population is comprised of CSU MBA enrollment data from 1991-2015.

**Gender.** Eighteen respondents self-identified as female, representing 20% of the sample.

**Program type.** Sixty-two respondents (69%) indicated they pursued the MBA at CSU via the internet.

**Age.** The age of respondents ranged from 24 to 67, with a mean of 44 years (*SD*, 8.78).

**Years since degree awarded.** Years since degree awarded was calculated by subtracting the MBA graduation year from the year that data was collected (2017) for each case. The years since degree awarded ranged from 2 to 26 years with a mean of 6.7 years (*SD*, 5.18).



**Giving behavior.** Whether or not alumni had made a financial donation to Colorado State University since graduation determined their giving behavior. Giving behavior was categorized based on whether the response from the survey question, “Have you made a financial gift to your graduate (MBA) institution?” was yes (donor), or no (non-donor). Thirty-two respondents (35.6%) self-identified as donors in this study. Fifty-eight respondents (64.4%) self-identified as non-donors. Table 4.3 includes descriptive statistics for amounts of donations last made by donors.

**Attitude toward giving.** Attitude toward giving applied to the 58 non-donor respondents in the sample and was categorized based on whether the response from the survey question, “do you intend to make a future gift to your graduate (MBA) institution?” was yes (intend to donate), or no (no intention to donate). Of the 58 non-donors, 21 respondents (36.2% of the subset) self-identified as intending to give, while 37 respondents (63.8% of the subset) indicated no intention to make a future gift. Table 4.3 includes descriptive statistics for potential financial donations by those reported as intending to make a future gift.

**Sense of community.** Ten items from Rovai, Wighting and Lucking’s (2004) Classroom and School Community Inventory (CSCI) were employed to measure each respondent’s sense of community with respect to their MBA program. The ten items comprise the second half of the CSCI instrument and are designed to measure the sense of community in the school (or, in this case, the MBA program) as experienced by the participant of the study. The ten items included statements such as, “I had friends in this program to whom I could tell anything,” and “I felt that I could rely on others in this program.” All ten items are listed in Appendix A.

After reverse scoring one negatively-worded item on the questionnaire, the individual responses to each item were summed by each case to generate an overall CSCI score for each

participant. The minimum value possible for the CSCI is zero, and the maximum total CSCI score for the ten items is 40. A higher score represents a stronger sense of community and a lower score represents a weaker sense of community. CSCI scores generated in this study ranged from 10 to 40, with a mean score of 27.25 (*SD*, 6.41).

Table 4.3

*Descriptive Statistics for Study Variables*

Variable	<i>N</i>	<i>Min.</i>	<i>Max.</i>	<i>M</i>	<i>SD</i>
Years Since Grad	90	2	26	6.60	5.18
Age	90	24	67	43.98	8.79
Gift made to CSU in \$	31	15	25,000	1190.81	4526.50
Intended gift to CSU in \$	18	1	20,000	1676.17	4716.28
CSCI score	90	10	40	27.25	6.41

*Notes.* CSCI = Classroom & School Community Inventory

**Descriptive Statistics of Online and Face-to-face MBA Alumni Groups**

Data from 90 CSU MBA Alumni (61 online and 27 face-to-face) were gathered. Table 4.4 shows the frequencies and percentages of alumni by race/ethnicity; gender; citizenship; employment, degree, and donor status; attitude toward giving; and employment by CSU. The majority of both online and face-to-face alumni groups self-identified as White/Caucasian non-Hispanic, male, of US citizenship, full-time employed, or non-donors to Colorado State University. The majority of alumni who pursued the CSU MBA online did so part-time (72.1%), whereas as the majority of alumni who pursued the CSU MBA via traditional face-to-face instruction did so full-time (63.0%).

Table 4.4

*Demographics of a Sample of 90 CSU MBA Alumni by Program Type (online = 61, face-to-face = 27)*

Characteristic	Online MBA		Face-to-face MBA	
	<i>n</i>	%	<i>n</i>	%
<b>Race/Ethnicity</b>				
Non-White	15	24.6	8	29.6
White/Caucasian non-Hispanic	46	75.4	19	70.4
<b>Gender</b>				
Female	10	16.4	8	29.6
Male	51	83.6	19	70.4
<b>Citizenship</b>				
US citizen	55	90.2	24	88.9
Other, non-US citizen	6	9.8	3	11.1
<b>Employment status</b>				
Full-time employed	57	93.4	25	92.6
Part-time employed	2	3.3	0	0.0
Unemployed	2	3.3	1	3.7
<b>Degree status</b>				
Full-time	17	27.9	17	63.0
Part-time	44	72.1	10	37.0
<b>Donor status</b>				
Donor	19	31.1	13	48.1
Non-donor	42	68.9	14	51.9
<b>Attitude toward giving</b>				
Intends to donate	13	23.3	6	22.2
No intention to donate	29	47.5	8	29.6
CSU employed	9	14.8	3	11.1

Table 4.5 shows descriptive statistics of participants' years since graduation, age, amount of financial donation to CSU made or intending to make, and sense of community score. Data is presented for the online CSU MBA alumni group and the traditional, face-to-face CSU MBA alumni group.

Table 4.5

*Descriptive Statistics for Study Variables by Program Type*

Variable	<i>N</i>	<i>Min.</i>	<i>Max.</i>	<i>M</i>	<i>SD</i>
Years Since Grad					
Face-to-face	23	2	26	8.13	6.26
Online	47	2	16	5.79	4.06
Age					
Face-to-face	27	24	60	42.70	9.19
Online	61	30	67	44.18	8.23
Gift made to CSU in \$					
Face-to-face	12	25	25000	2460.42	7133.54
Online	19	15	5000	388.95	1139.10
Intended gift to CSU in \$					
Face-to-face	5	1	1000	290.20	406.64
Online	13	20	20000	2209.23	5580.90
CSCI score					
Face-to-face	26	10	40	30.50	6.41
Online	61	10	39	25.77	5.92

*Note.* CSCI = Classroom & School Community Inventory

Analysis of statistical differences between the Online and Face-to-face Alumni groups is presented later in this chapter.

**Test of Reliability**

To test the internal reliability of the sense of community instrument used in the study, IBM SPSS was used to determine Cronbach's alpha. Cronbach's alpha is a statistic used to check for internal consistency, with higher values indicating greater levels of reliability. Test results showed a Cronbach's alpha of .805 on the 10 items of the CSCI, which indicates a high level of internal consistency for the CSCI scale with this specific sample.

## Results from Research Questions

To examine the relationship between personal characteristics and experiences, and financial giving behaviors and attitudes toward giving of traditional face-to-face MBA alumni and distance (online) MBA alumni at a major public research institution, this study considered three research questions.

1. How do demographic characteristics (e.g., gender, age, years since graduation) of online and traditional MBA alumni relate to their donor behaviors and attitudes toward giving?
2. How does the sense of community experienced by online and traditional MBA students relate to their donor behaviors and attitudes toward giving as alumni?
3. How do alumni who pursued their MBA online differ from alumni who pursued their MBA traditionally (face-to-face) regarding demographic characteristics, sense of community experienced, and donor behavior and attitudes toward giving?

This section explores the results of binary logistic regression and independent samples tests performed on key data collected from CSU MBA alumni, aimed at responding to the three research questions posed.

### Demographics and Giving Behavior and Attitudes

**Donor.** Logistic regression was conducted to assess whether the three predictor variables, gender, age, and years since graduation, significantly predicted whether or not an alumnus of the CSU MBA program made a financial donation to the university. When all three predictor variables are considered together, they significantly predict whether or not the alumni made a financial donation to Colorado State University,  $X^2 = 11.41$ ,  $df = 3$ ,  $N = 90$ ,  $p < .05$ . Table 4.6 presents the odds ratios, which suggest that the odds of an alumnus making a financial donation are increasingly greater as age increases and as gender is female.

A test of the full model against a constant-only model was statistically significant ( $X^2 = 11.41$ ,  $df = 3$ ,  $N = 90$ ,  $p < .05$ ), indicating that the predictors, as a set, reliably distinguished between alumni of CSU's MBA program who made a financial donation to the university and those alumni who did not make a financial donation.

Nagelkerke's pseudo  $R^2$  of .16 indicated a weak relationship between prediction and grouping. Prediction success overall was 72%. Table 4.6 presents the Wald statistics, significance levels, and odds ratios for each of the three predictors. According to these results, two of the three predictors reliably predicted membership in the donor group.

Table 4.6

*Logistic Regression Predicting Who Donates*

Variable	<i>B</i>	<i>SE</i>	Wald	Odds ratio	<i>p</i>
Gender	1.329	.593	5.510	5.684	.019
Age	.078	.033	5.587	1.097	.019
Yrs Since Grad	-.017	.057	.089	.962	.765
Constant	-4.239	1.402	9.142	.007	.003

The significant predictors were gender,  $z = 5.51$ ,  $p < .05$ , and age,  $z = 5.59$ ,  $p < .05$ . Years since graduation was not a statistically significant predictor in the model.

Odds ratio values indicate that the odds an alumnus who is female belongs to the donor group is 5.68 times more likely than the odds a male alumnus belongs to the donor group, when other variables are held constant. The results also indicate that, for every year older an alumnus is, the odds that an alumnus belongs to the donor group increases by 8.1%, when other variables are held constant.

**Intend to donate.** Logistic regression was conducted to assess whether the three predictor variables, gender, age, and years since graduation, significantly predicted whether or

not a non-donor alumnus of the CSU MBA program intended to make a future financial donation to the university. When all three predictor variables are considered together, they significantly predict whether or not the non-donor alumni intends to make a future financial donation to Colorado State University,  $X^2 = 7.918$ ,  $df = 3$ ,  $N = 58$ ,  $p < .05$ . Table 4.7 presents the odds ratios, which suggest that the odds of a non-donor alumnus intending to make a financial donation in the future are increasingly greater when gender is female.

A test of the full model against a constant-only model was statistically significant ( $X^2 = 7.918$ ,  $df = 3$ ,  $N = 58$ ,  $p < .05$ ), indicating that the predictors, as a set, reliably distinguished between non-donor alumni of CSU's MBA program who intend to make a financial donation to the university and those non-donor alumni who do not intend to make a financial donation in the future.

Nagelkerke's pseudo  $R^2$  of .17 indicated a weak relationship between prediction and grouping. Prediction success overall was 69%. Table 4.7 presents the Wald statistics, significance levels, and odds ratios for each of the three predictors. According to these results, one of the three predictors reliably predicted membership in the intend to donate group.

Table 4.7

*Logistic Regression Predicting Who Intends To Donate*

Variable	<i>B</i>	<i>SE</i>	Wald	Odds ratio	<i>p</i>
Gender	1.821	.878	4.302	3.926	.038
Age	.071	.044	2.604	1.083	.103
Yrs Since Grad	-.132	.083	2.529	.881	.109
Constant	-3.069	1.787	2.949	.030	.086

The significant predictor was gender,  $z = 4.302$ ,  $p < .05$ . Age and Years since graduation were not significant predictors in the model. Odds ratio values indicate that the odds an alumnus who

is female belongs to the intend to donate group is 3.93 times greater than the odds a male alumnus belongs to the intend to donate group, when other variables are held constant.

### **Sense of Community and Giving Behavior and Attitudes**

**Donor.** Logistic regression was conducted to assess whether the predictor variable, sense of community, significantly predicted whether or not an alumnus of the CSU MBA program made a financial donation to the university. The predictor variable significantly predicts whether or not the alumni made a financial donation to Colorado State University,  $X^2 = 4.914$ ,  $df = 1$ ,  $N = 90$ ,  $p < .05$ . Table 4.8 presents the odds ratios, which suggest that the odds of an alumnus making a financial donation are increasingly greater as sense of community increases.

A test of the full model against a constant-only model was statistically significant ( $X^2 = 4.914$ ,  $df = 1$ ,  $N = 90$ ,  $p < .05$ ), indicating that the predictor reliably distinguished between alumni of CSU’s MBA program who made a financial donation to the university and those alumni who did not make a financial donation.

Nagelkerke’s pseudo  $R^2$  of .07 indicated a very weak relationship between prediction and grouping. Prediction success overall was 67%. Table 4.8 presents the Wald statistics, significance levels, and odds ratios for the predictor. According to these results, the sense of community predictor reliably predicted membership in the donor group.

Table 4.8

#### *Logistic Regression Predicting Who Donates*

Variable	<i>B</i>	<i>SE</i>	Wald	Odds ratio	<i>p</i>
CSCI	.077	.039	3.898	1.086	.050
Constant	-2.739	1.131	5.865	.060	.016



The results indicate that for every additional CSCI unit an alumnus reported, the odds that the alumnus belongs to the donor group is 8.0% greater, when other variables are held constant.

**Intend to donate.** Logistic regression was conducted to assess whether the predictor variable, sense of community score, significantly predicted whether or not a non-donor alumnus of the CSU MBA program intends to make a financial donation to the university. The predictor variable significantly predicts whether or not the non-donor alumni intends to make a future financial donation to Colorado State University,  $X^2 = 8.876$ ,  $df = 1$ ,  $N = 58$ ,  $p < .01$ . Table 4.9 presents the odds ratios, which suggest that the odds of non-donor alumni making a future financial donation are increasingly greater as sense of community (CSCI) increases.

A test of the full model against a constant-only model was statistically significant ( $X^2 = 8.876$ ,  $df = 1$ ,  $N = 58$ ,  $p < .01$ ), indicating that the predictor reliably distinguished between non-donor alumni of CSU's MBA program who intend to make a financial donation to the university and those non-donor alumni who do not intend to make a financial donation.

Nagelkerke's pseudo  $R^2$  of .20 indicated a weak relationship between prediction and grouping. Prediction success overall was 71%. Table 4.9 presents the Wald statistics, significance levels, and odds ratios for the predictor. According to these results, the sense of community predictor reliably predicted membership in the intend to donate group.

Table 4.9

*Logistic Regression Predicting Who Intends to Donate*

Variable	<i>B</i>	<i>SE</i>	Wald	Odds ratio	<i>p</i>
CSCI	.151	.061	6.128	1.163	.014
Constant	-4.670	1.741	7.195	.009	.008

The results indicate that for every additional CSCI unit an alumnus reported, the odds the alumnus belongs to the intend to donate group is 16.3% greater, when all other variables are held constant.

### **Differences between Online and Face-to-face MBA Alumni**

**Independent samples test.** An independent samples *t* test was administered on the study data to explore differences between distance (online) alumni of MBA programs and traditional face-to-face alumni of MBA programs regarding demographic characteristics, sense of community experienced, and donor behavior and attitudes toward giving. Additional variables from the survey were examined for each subgroup to better understand the differences between online alumni and face-to-face alumni. The following assumptions were tested and met, or were adjusted and noted: (a) groups are approximately the same size, (b) the variances of the two populations are equal, (c) observations were independent, and (d) the dependent variables were approximately normally distributed in both groups (Morgan, Leech, Gloeckner, & Barrett, 2013). Table 4.10 provides the relevant test statistics, significance levels, and effect size statistics for the group variables.

Table 4.10 shows that online CSU MBA alumni were different than traditional face-to-face CSU MBA alumni on sense of community (CSCI score), with statistical significance ( $p = .00$ ). Inspection of the two group means indicated that the average CSCI score for online alumni ( $M = 25.83$ ) was significantly lower than the score for traditional face-to-face alumni ( $M = 30.36$ ). The difference between the means was 4.53 points on a 40-point test. The effect size  $d$  was approximately .19, which is a small effect size in the behavioral sciences (Cohen, 1988).

In this study, online alumni did not differ from face-to-face alumni on age ( $p = .59$ ); donor status ( $p = .18$ ); attitude toward giving ( $p = .32$ ); gender ( $p = .22$ ); citizenship ( $p = .79$ );

nor race/ethnicity ( $p = .61$ ). Face-to-face MBA alumni did differ from online MBA alumni with more years since graduation ( $p = .07$ ), with a small to medium effect size ( $d = .24$ ), and with greater numbers pursuing full-time study of the MBA than the online alumni had ( $p = .00$ ), with a smaller than typical effect size ( $d = .15$ ).

Table 4.10

*Comparison of Online and Face-to-face CSU MBA Alumni on Key Study Characteristics (n= 61 online and 27 face-to-face)*

Characteristic	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
Age			-.54	301	.59	-.06
Face-to-face	43.19	9.61				
Online	44.34	8.38				
Donor			1.35 <sup>a</sup>	4524 <sup>a</sup>	.18	.04
Face-to-face	.46	.51				
Online	.31	.47				
Amount of Gift in \$			1.00 <sup>a</sup>	11.4 <sup>a</sup>	.34	.59
Face-to-face	2460.42	7133.54				
Online	388.95	1139.10				
Intend to Donate			.99	444	.32	.09
Face-to-face	.47	.52				
Online	.32	.47				
Amount of Intended Gift in \$			-.76	16	.46	-.38
Face-to-face	290.20	406.64				
Online	2209.23	5508.90				
Typically donate to causes			.46	1772	.65	.02
Face-to-face	.84	.37				
Online	.80	.40				
Avg # Academic Advisor Mtgs			2.12 <sup>a</sup>	3757 <sup>a</sup>	.03	.07
Face-to-face	1.52	2.11				
Online	.61	1.06				
Avg # Extra-curriculars			1.82 <sup>a</sup>	644.6 <sup>a</sup>	.07	.14
Face-to-face	2.43	6.00				
Online	.28	.82				
Avg # Career Cntr Mtgs			2.49 <sup>a</sup>	2234 <sup>a</sup>	.01	.11
Face-to-face	1.17	1.35				
Online	.45	.92				
Avg # Classmate Mtgs			3.35 <sup>a</sup>	869.4 <sup>a</sup>	.00	.23

Face-to-face	18.51	18.19				
Online	6.01	8.62				
Avg # Alumni Mtgs			2.24 <sup>a</sup>	10180 <sup>a</sup>	.03	.04
Face-to-face	1.61	3.25				
Online	.21	.82				
CSCI score			3.17	1152	.00	.19
Face-to-face	30.36	6.45				
Online	25.83	5.93				
Yrs since grad			1.84	227	.07	.24
Face-to-face	8.05	6.07				
Online	5.94	3.89				
Female			1.23 <sup>a</sup>	20650 <sup>a</sup>	.22	.02
Face-to-face	.28	.46				
Online	.16	.37				
US Citizen			-.27	564	.79	-.02
Face-to-face	.88	.33				
Online	.90	.30				
White			-.52	5999	.61	-.01
Face-to-face	.70	.47				
Online	.75	.43				
Full-time MBA			3.03	1706	.00	.15
Face-to-face	.60	.50				
Online	.28	.45				

<sup>a</sup>The *t* and *df* were adjusted because variances were not equal.

Inspection of additional data collected in this study showed statistically significant differences in online and face-to-face MBA alumni on several activities experienced as students. Traditional face-to-face alumni, while students, had greater numbers of meetings with academic advisors ( $p = .03$ ,  $d = .07$ ), more participation in extra-curricular club activities ( $p = .07$ ,  $d = .14$ ), more meetings with members of the College of Business Career Center ( $p = .01$ ,  $d = .11$ ), and more meetings with alumni of the CSU MBA ( $p = .03$ ,  $d = .04$ ) than did the alumni who pursued the CSU MBA online, with much smaller than typical effect sizes (Cohen, 1988). Face-to-face alumni met with classmates ( $M = 18.51$ ) more times per semester than online MBA alumni did

( $M = 6.01$ ), which was statistically significant ( $p = .00$ ) and with an effect size,  $d$ , of approximately .23. This is a small to medium effect size (Cohen, 1988).

### **Summary**

This chapter presented descriptive statistics and results of inferential statistical analysis conducted on data collected from alumni of Colorado State University's MBA program. The analysis considered factors such as personal characteristics and experiences and the financial giving behaviors and attitudes toward giving of Colorado State University MBA alumni. The method of instruction (online vs face-to-face) was considered, as were key characteristics (age, gender, years since graduation) identified as significant from the review of the literature. Sense of community was considered as the key variable in testing the theoretical construct of the study.

Statistical analysis of the key variables of the study suggested that the odds of an alumnus making a financial donation were increasingly greater as age increased and as gender was female. Analysis also suggests that the odds of an alumnus making a financial donation were increasingly greater as sense of community increased. Despite what the literature suggests, years since graduation was not a statistically significant predictor of membership to the donor group in this study.

Similarly, age and years since graduation were not significant predictors of membership to the intend to donate group. Gender, again, was a significant predictor, indicating that an alumnus who was female was more likely to belong to the intend to donate group than a male alumnus. Sense of community was also a significant predictor of membership to the intend to donate group, where for every additional CSCI unit an alumnus reported, the alumnus was more likely to belong to the intend to donate group.

Further analysis through this study explored differences between the online alumni group and the face-to-face alumni group. Statistical analysis showed that online CSU MBA alumni were different than traditional face-to-face CSU MBA alumni on sense of community, whereby the sense of community score for the online alumni was significantly lower than the score for traditional face-to-face alumni. Face-to-face MBA alumni, as a group, reported a statistically significant higher number of years since graduation than online MBA alumni, and with greater numbers pursuing full-time study of the MBA than the online alumni had.

Furthermore, traditional face-to-face alumni, while students, had greater numbers of meetings with academic advisors, more participation in extra-curricular club activities, more meetings with members of the College of Business Career Center, and more meetings with alumni of the CSU MBA than did the alumni who pursued the CSU MBA online. Face-to-face alumni met with classmates more times per semester than online MBA alumni did. Analysis in this study also demonstrated, however, that online alumni did not differ from face-to-face alumni on the following characteristics: age; donor status; attitude toward giving; gender; citizenship; and race/ethnicity.

Chapter five discusses the findings and implications of this study and also addresses recommendations for further research.

## CHAPTER 5: DISCUSSION

This chapter presents important conclusions drawn from the data presented in chapter four. It also revisits limitations of the study, provides a discussion of the implications from the conclusions, and offers possible future actions and recommendations for further research.

### **Findings and Interpretation of the Data**

This section describes the results from each of the three research questions posed in the study. First, demographic characteristics (gender, age, and years since graduation) of the CSU MBA alumni are considered relative to the giving behavior and attitude toward giving of those alumni. Next, sense of community scores, as measured by the Classroom and School Community Inventory (CSCI), are discussed relative to participants' giving behavior and attitudes toward giving. In response to the third research question of the study, the differences between the online alumni group and the traditional alumni group are explored. The discussion of the third research question includes differences in the make-up of the groups themselves as well as differences in the program activities and levels of sense of community between the two groups, and differences in the giving behavior and attitudes toward giving between the two groups.

As results from the relevant studies have suggested inconsistent outcomes, it is necessary to consider possible explanations for these differences. As the following section addresses the study's pertinent outcomes in relation to the literature, including specific discussion of inconsistencies across the studies, possible explanations for some differences immediately follow. In general, different results might be explained by differences in the samples, the sample sizes, how the variables are defined across studies, and the statistical methods used for analysis.

The present study found that 35 percent of CSU's MBA alumni self-identified as being financial donors to Colorado State University. By comparison, Schoenfeld's (2014) study of 20,704 alumni representing 132 graduate business schools found that 47 percent reported that they had made a financial donation to their graduate business school. While the present study found that 36 percent of non-donors indicated that they intended to donate to CSU in the future, Schoenfeld's study found that only 30 percent of non-donors indicated they planned to give in the future (2014). The present study found that CSU MBA alumni made financial gifts to their alma mater at a slightly lower rate than the national average, but many of those CSU MBA alumni who had not yet given indicated they would give in the future and potentially at a rate slightly higher than the average.

### **Demographic Characteristics of Online and Traditional MBA Alumni**

**Gender.** The present study found that gender was a statistically significant factor in determining membership of CSU MBA alumni to the group of alumni who donated back to their alma mater. Odds ratio values indicate that the odds an alumnus who is female belongs to the donor group is nearly 6 times greater than the odds a male alumnus belongs to the donor group. This study also found that gender was a statistically significant factor in determining whether or not a CSU MBA alumnus was likely to make a first time, future donation to their alma mater. In this study, the odds of female alumni intending to give a future financial gift were about 4 times greater than male alumni.

**Comparisons with the literature.** This study's findings on gender contradicts the findings of Baruch and Sang (2012), Lara and Johnson (2008), and Okunade and Berl (1997), who did not find gender to be a statistically significant factor influencing the giving behavior of MBA alumni. This present study's findings also contradict the findings of Bruce (2007), whose finding



suggested gender was not significantly correlated with the likelihood of future financial donations of MBA graduates.

*What explains these differences?* For this study's finding, gender is a statistically significant factor in determining donor behavior. A limitation to consider, however, is the absence of additional control variables. The present study could fail to recognize that gender serves as a proxy for another related variable that has been omitted. For example, this study did not consider the individual financial resources available (ability to give) for each alumnus as a variable to include in the analysis. If the female alumni had greater financial resources than the male alumni, the greater financial means could explain why female alumni were more likely to give than their male counterparts. In essence, it could be greater financial resources that influenced donor behavior instead of gender. Nevertheless, this study's finding on gender may be revealing something important, especially given that men have typically received higher salaries than have women.

*Meaning of findings.* Lara and Johnson (2008) and Okunade and Berl (1997) did not find gender to be statistically significant, however, Lara and Johnson (2008) reported that "[m]en give less often than women do, but they give an average of over \$200 more per person when they decide to give" (p.17). Also, Baruch and Sang's (2012) review of the broader literature on gender and charitable giving found that "generally women are more likely to make financial donation to charity than men" (p. 811). These findings provide some additional support for the present study's finding that gender is a likely factor influencing donor behavior for CSU's MBA alumni.

The present study's findings on gender are meaningful and suggest that, within the CSU MBA alumni population, gender is a factor that can be considered in influencing donor behavior. The results are consistent with the broader literature on alumni giving that has shown higher

rates of giving from female donors over male donors (Belfield & Beney, 2000; Dvorak & Toubman, 2013; Holmes, Meditz, & Sommers, 2008).

**Age.** The present study found that age was a statistically significant factor in determining membership of CSU MBA alumni to the group of alumni who donated back to their alma mater. Results of the present study show that for every year older an alumnus is, the odds the alumnus belongs to the donor group is approximately 8% greater.

**Comparison with the literature.** Baruch and Sang (2012) and Bruce (2007) did not find age to be a significant factor in determining which alumni donated back to their business school. The present study's result is in keeping with Lara and Johnson (2008) and Okunade and Berl (1997), however, who found that older alumni were significantly more likely to donate to their business schools than their younger counterparts.

**What explains these differences?** In reviewing the results of Baruch and Sang (2012), the lack of significance for age as a predictor of giving behavior in their study might be explained by two factors. First, Baruch and Sang controlled for financial earnings in their analysis. Since age is positively correlated with earnings, the fact that older alumni are more likely to give may be "mediated by their actual income" (Baruch and Sang, 2012, p. 811). Second, the sample in Baruch and Sang's study consists of young participants (most under the age of 34); whereas the present study of CSU alumni consisted of participants with an average age of 44 years, which allows for more variability. Similarly, Bruce's (2007) sample consists of young participants, with 81% under the age of 34 (p. 8). The lack of variability in these studies does not provide much opportunity to study the effect that age might have on donor behavior. In contrast, the Lara and Johnson (2008) and Okunade and Berl (1997) studies did control for

income and did find age to be a significant predictor of donor behavior, providing additional evidence that age has a separate effect on giving.

**Meaning of findings.** A close review of this study's results in comparison with the literature suggests that controlling for an additional variable (ability to give) might be preferable when considering age as a factor that could influence donor behavior. Age may represent both income/wealth and life-cycle considerations (e.g., older individuals do not have to worry as much about saving, paying off student loans, paying for childcare, etc.). Absent a control variable for earnings in this study, as in Lara and Johnson (2008) and Okunade and Berl (1997), it is not possible to distinguish income/wealth vs life-cycle. Not surprisingly, the age coefficient of the present study appears larger/more significant than the age coefficient of studies that control for income, such as Lara and Johnson (2008). The present study's findings suggest that age is a statistically significant factor in determining membership of CSU MBA alumni to the group of alumni who donated back to their alma mater. And there is supporting evidence for this finding from Lara and Johnson (2008) and Okunade and Berl (1997). However, controlling for ability to give would provide for stronger analysis and consideration of age as an influential factor.

**Years since graduation.** The present study found that years since graduation was not a statistically significant factor in determining membership of CSU MBA alumni to the group of alumni who donated back to their alma mater. Likewise, years since graduation was not a statistically significant predictor of the intend to donate group in this study.

**Comparisons with the literature.** Okunade and Berl (1997) found that marginal probabilities of giving increase as time since graduation increases (p. 209). In Okunade (1996),

donations by more recent graduate degree alumni showed a significantly decreasing trend relative to those of the older generation (p, 223).

*What explains these differences?* In Okunade and Berl's 2007 study, age and years since graduation are not controlled separately. Instead, the authors interpret the years since graduation as a proxy for age: "The results portray older alumni to be significantly more likely to donate relative to their more recent (1982-91) counterparts. This concurs with the general expectation that older alumni have higher net worth and larger capacity for charitable giving" (Okunade & Berl, 1997 p. 208). Similarly, Okunade's 1996 study did not control for both age and years since graduation separately.

*Meaning of findings.* Despite what other relevant studies concluded, this present study did not find years since graduation a statistically significant factor in determining donor behavior within the CSU MBA alumni sample. The present study controlled for both age and years since graduation while Okunade and Berl (1997) and Okunade (1996) did not. The statistically significant finding from those two studies should be reviewed carefully, as age and years since graduation move together. As such, the results on years since graduation from those studies are likely impacted by multicollinearity.

### **Sense of Community of Online and Traditional MBA Alumni**

**Sense of Community.** This study introduces sense of community as a factor to consider regarding alumni giving behavior and attitude toward giving. Without comparable research investigating sense of community and alumni giving, this study offers analysis and results that uniquely describe alumni behavior and attitudes toward giving back to their alma mater. Findings of the study show that for every additional unit an alumnus scores on the CSCI (Classroom and School Community Inventory), the odds the alumnus belongs to the donor group is

approximately 8% greater. Similarly, for every additional CSCI unit a non-donor alumnus reports, the odds the alumnus belongs to the intend to donate group is 16% greater.

An important limitation to highlight relative to these findings is the self-reported nature of sense of community in this study. The CSCI scores are calculated based on the self-reported responses to relevant questions by the participants. There is no measure that can capture the actual experience of sense of community. Instead, it is the perception of sense of community that is captured through the CSCI.

*Comparisons with the literature.* Because this study offers an original contribution to the literature with regard to sense of community and giving behavior, there is little direct comparison with other studies available. However, other studies have suggested that certain types of experiences or relationships formed at institutions of higher education make significant impacts on the giving behavior of alumni.

In keeping with Schervish and Havens' identification theory of charitable giving (1997), when students and alumni feel a connection to their MBA group and have an understanding of the needs of others in the group, members donate in further support of the community. The fact that the results of this study suggest nearly twice the likelihood of future giving than actual giving might follow the results of Bruce (2007), where several variables were positively correlated with MBA alumni giving, but less strongly than in the analysis of donation likelihood.

In their 2005 study, McAlexander, Koenig, and Schouten explored how relationships among university students affected their long-term loyalty to their alma mater. Using a list of alumni provided by a large Western U.S. university, the researchers contacted by telephone alumni who had graduated in the three to eight years prior. The sample consisted of 481 alumni, representing approximately 16% of the alumni who graduated during that time period, which

represented a response rate of approximately 43% (McAlexander, Koenig, & Schouten, 2005).

The researchers focused on the relationships formed among university students and that endured after graduation, and how those relationships influence the university's subsequent marketing outcomes (e.g., fundraising) (McAlexander, et al., 2005).

McAlexander, et al. (2005) found that "relationships with other students" and "fun" were the most important drivers of donation behavior. Donating money to the university was "strongly influenced by interpersonal ties and the experiential component (especially a feeling that the alumni enjoyed their time at the university)" (McAlexander, et al., 2005, p. 75). They also found that the experiential component factored strongly into the university's desired behavioral intentions (e.g., future donations).

Moore's 2014 qualitative study of 18 students enrolled in various online graduate programs at Johns Hopkins University looked at several factors that might influence alumni giving, including "sense of belonging." Moore's analysis suggested that "respondents with a strong sense of belonging also had a high propensity for alumni giving" (p. 63).

In Lara and Johnson's 2008 study, membership in Greek organizations (fraternities and sororities) was positively associated with more giving from alumni with statistical significance. In his 1996 study, Okunade used "sense of belonging" (proxied by "institutional tenure") as a factor influencing giving (p. 218). While these studies, as well as McAlexander, et al. (2005), did not make use of sense of community specifically in their analysis, their studies help to support the sense of community construct as a related factor which could influence the donor behavior of alumni.

*What explains these differences?* All of the aforementioned studies consider the relationship between students/alumni with some element of the institutional experience when

considering financial donations. They do not consider sense of community, as defined in the present study, however. And some, such as Moore (2014), suggest that sense of belonging has an impact on behavior such as alumni giving, but fail to provide any empirical evidence in support of their claims. The present study uses a more direct measure of sense of community, through the CSCI, than any of the related studies.

*Meaning of the findings.* The present study provides new insight into how sense of community directly relates to financial giving in the CSU MBA alumni community. As other related studies have suggested is possible or likely, this study finds a statistically significant impact on alumni giving participation in keeping with higher levels of sense of community.

The findings of this study suggest that the benefits of higher levels of sense of community can be rather large. For example, higher levels of sense of community in this study suggest higher rates of alumni giving at levels equivalent to what additional years of experience/age show. While this study's findings suggest that older, female alumni are more likely to be donors, it is not possible to increase the age or years of experience, or change the gender of alumni. Findings that suggest that an experiential factor, such as sense of community, is related to the giving behavior of alumni offer colleges and universities the opportunity to consider interventions that positively affect the sense of community of students/alumni. If sense of community among students/alumni is a factor that influences giving behavior, as this study suggests is possible, CSU's College of Business now has an opportunity to promote higher levels of sense of community among its MBA students with the potential for higher rates of donations from alumni.

## **Differences between Online and Traditional MBA Alumni**

Differences between the online MBA alumni and traditional face-to-face MBA alumni in this study revealed very few significant demographic differences, few significant differences in giving behavior and attitudes, and some significant differences in program activities and sense of community.

**Demographic differences between the groups.** When comparing online MBA alumni in the study to traditional face-to-face MBA alumni in the study, the statistical analysis found that the two groups did not significantly differ on the following demographic characteristics: age; gender; citizenship; and race/ethnicity. This means that the two groups of alumni are similarly proportioned when it comes to those demographic variables. Comparing the online group of alumni to the traditional group of alumni yielded results that were not biased by differences in age, gender, citizenship, nor race/ethnicity between the two groups.

The two alumni groups did differ significantly on years since graduation and on the full-time enrollment status of the participants, but with small to medium and smaller than typical effect sizes, respectively. The traditional face-to-face group had significantly more years since graduation than the online group, likely a result of the long history of CSU offering the traditional MBA program, whereas the online option has only existed for the past two decades. And the online MBA group at CSU pursued the degree part-time to a significantly larger extent than the face-to-face group did, likely due to the flexible nature of the online program. The flexibility of the online MBA option, to include its part-time option, is a major aspect of the degree that attracts prospective students intending to pursue the MBA while maintaining full or part-time employment.



**Differences in behavior and attitudes.** Results from this study indicate that there are no statistically significant differences between CSU's online MBA alumni group and its traditional MBA alumni group with respect to being a financial donor to Colorado State University. Both groups of alumni have similar levels of membership to the donor group. The same is true for membership in the intend to donate group. The study found no statistically significant difference between the members of the online MBA alumni group and the traditional face-to-face MBA alumni group with respect to intending to give a future financial donation to CSU.

**Comparisons with the literature.** Tiger and Preston (2013) examined the significance of online course use as a predictive variable for alumni giving at one medium sized, private liberal arts university. A quantitative study of 3,450 former undergraduate students, the results showed a negative correlation between participation in online classes and alumni giving. Specifically, Tiger and Preston's analysis found that the number of online courses a student completed had a negative correlation with alumni giving, which suggests that the mode of course instruction (online delivery) was a factor in giving outcomes.

In his 2013 study, Ketter found that online students had surprisingly more positive student experiences than did the face-to-face traditional MBA students. Ketter also found that those positive student experiences were positively related to alumni giving. His analysis suggested that alumni with positive student experiences related to personal relationships were 2.6 times more likely to be donors to their alma mater (Ketter, 2013, p. 86). Alumni with positive student experiences that were related to their career were 2.8 times more likely to be donors.

**What explains these differences?** There are several differences between the present study and Tiger and Preston's research that might help explain differences in the results. First, Tiger and Preston considered the giving behavior of alumni from an undergraduate program

rather than from a graduate program. According to Okunade (1996), comparing the giving behavior of undergraduate alumni with graduate alumni is inadvisable. Next, the alumni participants in the Tiger and Preston study had 7 or fewer years since graduation, which provided for less variability in that sample, and a short amount of time to have made the decision to donate. Lastly, very few alumni in the Tiger and Preston study had taken online courses actually. Even those who had taken online courses had taken 4 or fewer online classes over the course of their undergraduate studies.

Meanwhile, as Ketter speculates that positive student experience results in positive giving behavior, his definition of student experience is unclear. Nowhere is the term technically defined, leaving uncertainty as to what varieties of experience are being measured throughout the study. Additionally, Ketter failed to consider actual giving behavior from alumni of online versus face-to-face MBA programs.

***Meaning of the findings.*** Given that there no previous studies were found that directly compared the giving behavior and attitudes toward giving of alumni that pursued graduate studies online versus face-to-face, the literature offered little insight into what results could be expected on this question. The fact that in the present study there is no significant difference between the two alumni groups on their membership to the donor or intend to donate groups likely means that, despite the findings of Tiger and Preston (2013) and Ketter (2013), CSU can consider the giving behavior and attitudes of the online and face-to-face alumni as similar. Furthermore, the present study suggests that programs like CSU's MBA are not offering online degree options at the expense of alumni giving, as Lescht and Schejbal (2002) had suggested.

**Differences in program activities and sense of community.** Sense of community scores for the online MBA alumni are, with statistical significance and small effect size, lower than the

scores for traditional face-to-face MBA alumni in this study. In addition to the differences in levels of sense of community, statistical analysis in the present study found that face-to-face MBA alumni reported meeting with academic advisors, career services, alumni, fellow students, and participating in extra-curricular activities significantly more than online MBA alumni. In particular, face-to-face alumni met with classmates more times per semester than online MBA alumni did, which was statistically significant with a small to medium effect size.

*Comparisons with the literature.* The Ketter (2013) study also considered traditional and online MBA giving, and while it did not consider sense of community, it looked at the student and alumni experience through the lens of organizational identity theory. Ketter posited that the personal face-to-face interaction of the traditional MBA students at Penn State University would yield higher levels of student and alumni experiences, which would impact alumni giving. His results did not support his hypotheses, however, as the online MBA graduates responded with higher experience levels than the traditional face-to-face alumni.

The fact that online CSU MBA alumni reported connecting with fellow students, alumni, and other programmatic resources significantly less than did their traditional MBA counterparts is interesting to consider in light of Bruce's (2007) findings that the second-most influential variable for likelihood to donate was respondent satisfaction that the MBA has given them the opportunity to network and to form relationships of long-term value. Similarly, Schoenfeld (2004) identified that one aspect of MBA students' education that predicts their donating behavior as graduates is their satisfaction with networking opportunities while a student.

*What explains these differences?* Ketter's methodology is not directly analogous to the present study. Aside from the obvious differences in location and population of the study, Ketter's instrument did not specifically measure sense of community, but a mix of academic and

personal experiences. As already reported, the absence of an explanation of what and how Ketter measures the student/alumni experiences in his study makes it difficult to interpret his findings and compare them with the present study. It should be noted that online MBA programs are not homogeneous across institutions. Differences in program design and delivery are likely to contribute to differences in student behavior and activities from one institution to another, as well as their experiences and attitudes.

*Meaning of the findings.* The fact that the traditional face-to-face alumni had higher levels of sense of community as measured by the CSCI than did the online alumni group may be a result of the differences in the level of activities that each group reported. The traditional MBA alumni reported higher levels of interaction with fellow students with statistical significance and small to medium effect size. They also reported meeting with academic advisors, career services, alumni, fellow students, and participating in extra-curricular activities significantly more than online MBA alumni, but with much smaller than typical effect sizes.

However, an intriguing outcome of this study is the presence of a difference in sense of community scores between the face-to-face and online student groups and the lack of a difference (with statistical significance) in the behaviors and attitudes toward giving between the same groups. According to the earlier findings of this study, higher levels of sense of community in the sample predicted higher likelihood of giving within the sample. Yet, when the subgroups of online and face-to-face alumni are compared, despite having a higher level of sense of community than the online alumni group, the traditional face-to-face alumni group did not have a statistically significant difference in membership to the donor or intend to donate groups. The small effect size of the difference in sense of community levels between online and traditional alumni may help explain this discrepancy.

Additionally, an understanding of the relationship between sense of community and behavior and attitude toward giving is relatively nascent. There may be a threshold effect in which a significant change in behavior or attitude toward giving is produced after reaching a threshold score for sense of community. In the aggregate, the online and traditional MBA alumni groups' sense of community may predict membership in the donor or intend to donate groups differently than when taken individually. Unfortunately, the nature of the sample and the size of the sample do not permit robustness testing to appropriately examine this question of a threshold effect.

Lastly, there is at least one more reason that might explain why a higher sense of community score (traditional alumni group) would not be statistically different in predicting the likelihood of membership to the donor group as a lower sense of community score (online alumni group). The reason comes from the potential difference in the slopes of the regression lines for membership in the donor groups, one steeper for online alumni and a flatter slope for the traditional face-to-face alumni group. The small sample size of the study, however, prevents effective testing of the difference in slopes to further understand this phenomenon.

### **Implications for Practice**

The findings of this study reveal insights into the relationship between certain characteristics of Colorado State University MBA alumni and their giving behavior and attitude toward giving. In particular, this study offers perspectives on demographic characteristics and alumni giving, the relationship between sense of community and giving, and how online and traditional face-to-face alumni compare with respect to their behavior and attitudes toward giving.

## **Demographics and MBA Alumni Giving**

Given the finding of this study, programs like CSU's MBA should consider the likelihood of membership to the donor or intends to donate groups when designing fundraising efforts. For instance, it may prove more cost effective to put greater resources toward the targeting of older alumni when soliciting funds. Not to suggest that younger alumni should be ignored, but as this study revealed that older alumni are more likely to be donors than younger alumni, any higher level fundraising efforts (those which might be most costly) would best be organized for and offered to older alumni of the MBA program.

Similarly, attention should be paid to how gender is represented in the outreach efforts in soliciting donations from alumni. Since women were found to be more likely to be donors in this study, it would be advisable to consider fundraising efforts that appeal to female alumni in particular, or at least not repel female alumni. That is to say, despite enrolling less than 30 percent female students in the MBA program, fundraising campaigns should be thoughtful in how female donors are courted. Not only should print and other visual campaign media include depictions of women as well as men, funding opportunities that might appeal especially to female alumni should be made apparent. Additional research may find that female MBA alumni are more likely to donate to particular endeavors (e.g., scholarships, career-related programming), and, by presenting such opportunities, fundraisers can be more effective with their efforts.

## **Importance of Community**

Responding to a central question of this study, it was found that increasing levels of sense of community were positively related to greater likelihoods of belonging to the donor and intend to donate groups. Additionally, this study revealed that lower levels of sense of community were

reported by the online MBA alumni in comparison with the traditional alumni. This lower level suggests there is an opportunity for the sense of community levels of online alumni to be raised to be at least as high as the traditional alumni.

There are several reasons for considering interventions to raise the level of sense of community among students, including the aforementioned findings of this study that suggest increased levels of sense of community relate to higher levels of giving. The literature also suggests that higher levels of sense of community also relate to better learning outcomes, higher quality of student experience, and greater persistence to graduation (Liu, et al., 2007; McInnerney & Roberts, 2004; Rovai, 2002b). While this study is focused on financial giving, recommendations for seeking higher levels of sense of community among graduate students could yield benefits to the students directly, while having an added benefit of potentially being positively influential with alumni giving behavior and attitudes.

Efforts to increase sense of community for CSU MBA alumni begin with the student experience. Recommendations for increasing levels of sense of community in this study are in keeping with the elements of the CSCI that measure sense of community. In particular, interventions should focus on the student experience and build strong personal relationships among students; build strong personal relationships between students, faculty, and staff; and effectively promote and meet the learning goals and objectives of the course of study. Similarly, the key elements of McMillan and Chavis's (1986) sense of community are worth exploring. To encourage the development of high levels of sense of community, an institution might develop an environment that promotes and fosters among its students the feelings of membership (a feeling of belonging); influence (a sense of mattering); reinforcement (a sense that membership

leads to support from the group); and shared emotional connection (a commitment and belief that members share in their histories, locations, time, and experiences).

According to Schervish and Havens' identification theory of charitable giving, active participation of community members is the key element of building community (1997). To build sense of community, encouraging and facilitating the building of relationships among students and faculty and support staff should be an established practice within the CSU MBA program and programs like it.

For example, only 53 percent of participants in this study reported that they had attended new student orientation when they began their graduate studies. And 69 percent reported that they had never participated in any alumni activities after their graduation. When considering the traditional face-to-face students and online students separately, the numbers reveal lower levels of participation from the online group. The face-to-face alumni reported participation in the new student orientation at a rate of 78 percent versus 41 percent by the online alumni group. And while 58 percent of face-to-face alumni had yet to participate in post-graduation alumni activities, 74 percent of online alumni had not yet participated.

It is extremely difficult to involve online students residing in different time zones in a new student orientation that is likely costly to travel to for such a short time and an uncertain set of outcomes. However, new student orientation is likely all the more important for building community among online students who do not have the common experience of sitting in a classroom and traveling to the library, faculty offices, or attending happy hours with fellow students. Providing incentives to attend such an event, including incorporating a credit-earning course module during the orientation week, might improve the participation rates for all MBA



students. Alternative activities that can bring together students who otherwise cannot travel to campus should be considered as well.

Building community can also take place for graduates of the program as alumni activities. A potentially more challenging time to try to engage individuals than when they were actively engaged in coursework, it is not uncommon, however, for alumni activities to be planned in locations distant from the home campus. A focus on activities that support the continued learning of the alumni are more likely to contribute to increasing the sense of community among graduates, given how learning and learning outcomes are key elements of the construct. It is likely too late to build strong new relationships of trust and support among alumni who meet infrequently. Although, for those alumni who had developed some semblance of community among classmates (face-to-face or online), the opportunity to reconnect and strengthen those relationships as alumni would likely help increase levels of sense of community.

Lastly, to increase levels of sense of community, efforts to further meet the learning goals and objectives of the course of study should be considered. As the central responsibility of the academic program, there may not be much more to do than what the program currently offers in promoting and effectively meeting its learning goals. But where the program can identify weaknesses in this area, working to resolve any such deficiencies should be sought out, for the overall benefit of the students, the program's reputation, and also in consideration of building high levels of community.

### **Traditional and Online Alumni**

This study offered an important finding that traditional and online alumni of the MBA program did not differ with statistical significance on their behavior or attitude toward giving. The lack of a significant difference suggests good news for degrees with online cohorts, like

CSU's MBA. There should be less concern, in this instance, that the online MBA group is less likely to give than the traditional face-to-face group. In practice, this should equate to fundraising efforts for online alumni with equal expectation of positive outcomes as is expected for the traditional alumni group. Efforts to cultivate those alumni groups might be different, given their experiences and circumstances, but the efforts are likely to pay off similarly.

The fact that the traditional alumni scored significantly higher on sense of community than did the online alumni, yet the behavior and attitudes to giving were not significantly different, is of some concern. It poses a contradiction to other findings of the study that suggests there is a greater likelihood of being a donor as sense of community scores increase. Whether or not there is a threshold effect that help explains this inconsistency, in practice, the findings suggest that there is room to improve the level of sense of community among the online alumni cohort. Interventions that can further develop the relationships among the students, faculty, and staff should be considered.

Before serious implications can be drawn, additional research is needed to replicate and further validate this study's findings.

### **Limitations of the Study**

As discussed in Chapter 3, the limitations of this study were related to the population being studied, the method of exploration, and the number of participants in the study.

Data collection proved a limiting factor in this study. Understandably, institutions of higher education can be protective of data that might be used to solicit their alumni community. Obtaining the contact information of MBA alumni, even for research purposes, and even as a member of the same academic community, was surprisingly challenging and ultimately not

possible. Instead, I made use of the online professional networking application, LinkedIn, to support the data collection efforts of this study.

In making use of an opt-in online professional networking site, the data collection relied on responses from alumni who self-selected into an affinity group. Rather than relying on responses from members of the CSU MBA alumni community who may or may not belong to the LinkedIn group, this study relied on responses from some alumni who had actively joined a group designed to further their connection to the university through connecting with other members of the alumni community. Members of an online alumni group may tend to score higher levels of sense of community than do those alumni who have not chosen to join such an affinity group. If true, this self-selection may have biased the sample by including more alumni with greater positive feelings toward their alma mater than is true of the entire population. Results from *t* tests conducted on available population data and sample data for this study indicate no statistically significant differences in means across the variables, which suggests that the sample is representative of the population. However, *t* tests are not as useful in analyzing attitudes, and so a randomized study is preferable.

The limited number of responses to the survey (N=142) is also a limitation of the study. Based on the make-up of the LinkedIn group, the survey was submitted to an unknown number of individuals who were not MBA alumni and therefore not viable candidates to participate in the study.

The results of this study are not generalizable across the entire population of MBA alumni because of the small sample size and because only one type of institution was measured. This study was limited to alumni of business school graduate programs, specifically both online and traditional alumni of a MBA program. In addition, only those alumni who had enrolled at a

large, public, research, university located in the Western United States were invited to participate in the study. A more robust study is needed to provide ample evidence for generalization.

This study considers the influence of variables/characteristics of CSU MBA alumni on their membership in the donor group and the intend to donate group. One limitation of this approach is that each variable/alumni characteristic is not considered for each specific type of MBA student. In other words, instead of considering gender, age, and years since graduation as factors determining membership of the online alumni or traditional (face-to-face) alumni separately, the analysis considers the larger group of alumni, comingling the online and traditional alumni. Researchers suggest that the use of logistic regression analysis requires a ratio of 20 cases to each variable considered (Leech, Barrett, & Morgan, 2015). As such, larger numbers of participants in the study are needed to consider these factors with respect to the individual alumni groups. Given the number of useable cases present in the study (90), conducting the logistic regression on the two distinct alumni groups (online and face-to-face) would greatly weaken the statistical power of the analysis.

### **Future Research**

Given the dearth of research conducted on MBA alumni giving that includes online students, there are a number of opportunities for additional research to better advance our knowledge. First, attempting to reproduce the findings of this study would help to provide greater confidence in this study's outcomes. Securing a larger sample size in doing so would help to address several of the limitations and help resolve some curious outcomes of the present study. Expanding on several aspects of the study would also serve to provide greater insight into the behavior and attitudes of this community.

Based on a review of the literature and on the limitations of the statistical analysis chosen, this study considered a select group of variables to analyze. The list of variables to consider in future research could include several others noted as potentially significant in the literature to include: current earnings, changes in earning potential, opportunities for post-graduation activities (such as alumni networking), and perceived reputation of the MBA program.

Assuming greater numbers of cases available, future research might study the giving behaviors and attitudes toward giving of the online MBA alumni and traditional MBA alumni groups independently. For a more direct comparison of how each of the variables influence donor behavior and attitude towards giving within each subset of alumni, future research should evaluate factors that influence giving behaviors on the online alumni group, and then on the traditional alumni group. While the present study offered useful data on how factors relate to the giving behavior and attitudes of CSU's MBA alumni, including online alumni, more could be learned about each individual subgroup through separate analysis.

For more generalizable results, future research should investigate the sense of community and other factors' relationship with the giving behaviors and attitudes of MBA alumni from various online and traditional MBA programs. As mentioned, there is very little research on MBA giving behaviors, and even less on online alumni giving behaviors. Studies about either subgroup of alumni would significantly build up the body of knowledge in this area.

Lastly, it is recommended that additional research consider how sense of community can be effectively increased through different learning communities, such as traditional and online communities. If research continues to find that higher levels of sense of community are related to higher likelihoods for alumni giving, the corollary is to better understand how levels of sense of

community within students can be increased. Given that the results in this study indicate that traditional alumni enjoyed higher levels of sense of community than did the online alumni, there might be strategies that are more effective for certain subgroups than others. For practical applications, future research into the specific types of interventions that raise sense of community levels could be useful. An experimental approach that introduces potential community-enhancing activities could yield interesting insights into how sense of community can be fostered successfully. Such activities might differ to reflect practices better suited to students pursuing the degree online versus face-to-face.

## REFERENCES

- Allen, I.E., & Seaman, J. (2011). *Going the Distance: Online Education in the United States, 2011*. Babson Survey Research Group and Quahog Research Group, LLC. [www.onlinelearningsurvey.com/reports/goingthedistance.pdf](http://www.onlinelearningsurvey.com/reports/goingthedistance.pdf).
- Argyle, M. (1991). Cooperation in working groups. In *Cooperation: The basis of sociability* (pp. 115–131). London, England: Rutledge.
- Ashcraft, R. F. (1995). *An analysis of alumni donation and nondonation related to selected personal, involvement, and outcome factors*. (Doctoral Dissertation, Arizona State University).
- Astin, A. W. (1975). *Preventing students from dropping out*. San Francisco, CA: Jossey-Bass.
- Astin, A.W. (1999). Student involvement: A developmental theory for higher education. *Journal of College Student Development*, 40(5), 518-529.
- Austin, E. K. (2009). Limits to technology-based distance education in MPA curricula. *Journal of Public Affairs Education*, 161-176.
- Baker, P. C. (1998). *The relationship of selected characteristics and attitudes of professional school alumni to financial support within a public research university*. (Doctoral Dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 9833579)
- Baruch, Y., & Sang, K. J. (2012). Predicting MBA graduates' donation behaviour to their alma mater. *Journal of Management Development*, 31(8), 808-825.
- Belfield, C. R. & Beney, A. P. (2000). What determines alumni generosity? Evidence for the UK. *Education Economics*, 18, 65 – 80.
- Bentz, D. T. (2010). *Online and Face-to-Face Classes: A comparative analysis of teaching presence and instructor satisfaction*. (Doctoral dissertation, The University of Nebraska-Lincoln) Retrieved from DigitalCommons@University of Nebraska - Lincoln. <http://digitalcommons.unl.edu/cehsdiss/53>
- Bergtold, J.S., Yeager, E. A., & Featherstone, A.M. (2011). *Sample Size and Robustness of Inferences from Logistic Regression in the Presence of Nonlinearity and Multicollinearity*. Working paper. Annual Meeting of the Agricultural and Applied Economics Association. Pittsburgh, PA. July 24-26.
- Binkley, P. M. (2012). *Relationship of Graduate Student Involvement to Graduate Alumni Donor Behavior* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3523414)

- Black, E. W., Dawson, K., & Ferdig, R. E. (2006). Forgotten alumni: Online learners as donors. *Academic Exchange Quarterly*, 10(1), 43.
- Boling, E. C., Hough, M., Krinsky, H., Saleem, H., & Stevens, M. (2012). Cutting the distance in distance education: Perspectives on what promotes positive, online learning experiences. *The Internet and Higher Education*, 15(2), 118-126.
- Bristol, R.B., Jr. (1990). The life cycle of alumni donations. *The Review of Higher Education*, 75(4). 503-518.
- Brittingham, B. E., & Pezzullo, T. R. (1990). *The Campus Green: Fund Raising in Higher Education*. ASHE-ERIC Higher Education Report. Washington, DC: The George Washington University.
- Bruce, G. D. (2007). Exploring the Likelihood and Reality of MBA Alumni Financial Donations. *GMAC Research Reports*, RR-07-12. Retrieved from [http://www.gmac.com/~media/Files/gmac/Research/research-report-series/RR0712\\_ExploringFinancialDonations.pdf](http://www.gmac.com/~media/Files/gmac/Research/research-report-series/RR0712_ExploringFinancialDonations.pdf)
- Bruffee, K. A. (1993). *Collaborative learning: Higher education, interdependence, and the authority of knowledge*. Baltimore, MD: John Hopkins University Press.
- Bruggink, T. H. & Siddiqui, K. (1995). An econometric model of alumni giving: A case study for a liberal arts college. *The American Economist*, 39.
- Casey, A. M., & Lorenzen, M. (2010). Untapped potential: seeking library donors among alumni of distance learning programs. *Journal of Library Administration*, 50(5-6), 515-529.
- Chapman, T. A. (2012). *Variables associated with sense of community in online and on-ground clinical doctorate education*. (Doctoral dissertation, The University of Nebraska-Lincoln). Retrieved from DigitalCommons@University of Nebraska - Lincoln. <http://digitalcommons.unl.edu/teachlearnstudent/23>
- Chavis, D. M., Hogge, J. H., McMillan, D. W., & Wandersman, A. (1986). Sense of community through Brunswik's lens: A first look. *Journal of Community Psychology*, 14(1), 24-40.
- Chavis, D.M., Lee, K.S., & Acosta J.D. (2008). *The Sense of Community (SCI) Revised: The Reliability and Validity of the SCI-2*. Paper presented at the 2nd International Community Psychology Conference, Lisboa, Portugal.
- Chidambaram, L., & Bostrom, R. (1997). Group development (I): A review and synthesis of development models. *Group decision and negotiation*, 6(2), 159-187.
- Clotfelter, C.T. (2003). Alumni giving to elite private colleges and universities. *Economics of Education Review*, 22,109-120.



- Clotfelter, C. T. (2001). Who are the alumni donors? Giving by two generations of alumni from selective colleges. *Nonprofit Management and Leadership*, 12(2), 119-138.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2<sup>nd</sup> ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.
- Connolly, M. S., & Blanchette, R. (1986). Understanding and predicting alumni giving behavior. In J.A. Dunn Jr. (ed.) *Enhancing the Management of Fundraising. New Directions for Institutional Research*, No. 51, pp. 69-80, San Francisco, CA: Jossey-Bass.
- Creswell, J. W. (2009). *Research design: Qualitative, Quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications.
- Cunningham, B. M., & Cochi-Ficano, C. K. (2002). The determinants of donative revenue flows from alumni of higher education: An empirical inquiry. *Journal of Human Resources*, 540-569.
- Dawson, S. (2006). A study of the relationship between student communication interaction and sense of community. *The Internet and Higher Education*, 9(3), 153-162.
- Dean, M. S. (2007). Factors That Influence Alumni Major Giving at Doctoral Research Universities. *Online Submission*. Paper presented at the CASE V Conference (Chicago, IL, Dec 11, 2007).
- Dede, C. (1996). The evolution of distance education: Emerging technologies and distributed learning. *American Journal of Distance Education*, 10(2), 4-36.
- Delaney, J. A. (2014). The role of state policy in promoting college affordability. *The ANNALS of the American Academy of Political and Social Science*, 655(1), 56-78.
- Desai, M., Hart, J., & Richards, T. (2009). E-learning: Paradigm shift in education. *Education*, 129(2), 327-334.
- Diamond, W. D., & Kashyap, R. K. (1997). Extending models of prosocial behavior to explain university alumni contributions. *Journal of Applied Social Psychology* 27(10), 915-927.
- Doney, P. M., & Cannon, J. P. (1997). An examination of the nature of trust in buyer-seller relationships. *The Journal of Marketing*, 35-51.
- Doolittle, R. J., & MacDonald, D. (1978). Communication and a sense of community in a metropolitan neighborhood: A factor analytic examination. *Communication Quarterly*, 26(3), 2-7.
- Doyle, W., & Zumeta, W. (2014). State-level responses to the access and completion challenge in the new era of austerity. *The ANNALS of the American Academy of Political and Social Science*, 655(1), 79-98.

- Dvorak, T., & Toubman, S. R. (2013). Are women more generous than men? Evidence from alumni donations. *Eastern Economic Journal*, 39(1), 121-131.
- Eom, S. B., Wen, H. J., & Ashill, N. (2006). The determinants of students' perceived learning outcomes and satisfaction in university online education: An empirical investigation. *Decision Sciences Journal of Innovative Education*, 4(2), 215-235.
- Ethington, C. A., & Smart, J. C. (1986). Persistence to graduate education. *Research in Higher Education*, 24(3), 287-303.
- Fjermestad, J., Hiltz, S. R., & Zhang, Y. (2005). Effectiveness for students: Comparisons of “in-seat” and ALN courses. *Learning together online: Research on asynchronous learning networks*, 39-80. Mahwah, NJ: Lawrence Erlbaum Associates
- Gabarro, J. J. (1990). The development of working relationships. *Intellectual teamwork: Social and technological foundations of cooperative work*, 79, 110.
- Gaier, S. (2005). Alumni satisfaction with their undergraduate experience and the impact on alumni giving and participation. *International Journal of Educational Advancement*, 5(4), 278-288.
- Garrison, D. R., & Arbaugh, J. B. (2007). Researching the community of inquiry framework: Review, issues, and future directions. *The Internet and Higher Education*, 10(3), 157-172.
- Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2-3), 1-19.
- Garrison, D. R., Cleveland-Innes, M., Koole, M., & Kappelman, J. (2006). Revisiting methodological issues in transcript analysis: Negotiated coding and reliability. *The Internet and Higher Education*, 9(1), 1-8.
- Garrison, D. R., & Shale, D. (1987). Mapping the boundaries of distance education: Problems in defining the field. *American Journal of Distance Education*, 1(1), 7-13.
- Ginn, M. H., & Hammond, A. (2012). Online education in public affairs. *Online Journal of Distance Learning Administration*, 15(2).
- Gliner, J. A., Morgan, G. A., & Leech, N. L. (2009). *Research methods in applied settings: an integrated approach to design and analysis* (2nd ed.). New York, NY: Routledge.
- Glynn, T. J. (1981). Psychological sense of community: Measurement and application. *Human Relations*, 34(9), 789-818.

- Grant, J. H., & Lindauer, D. L. (1986). The economics of charity life-cycle patterns of alumnae contributions. *Eastern Economic Journal*, 129-141.
- Grewal, R., Dearden, J. A., & Lillian, G. L. (2012). The university rankings game. *The American Statistician*, 62 (3), 232-237.
- Haines, V., & Hurlbert, J. (1992). Network range and health. *Journal of Health and Social Behavior*, 33, 254–266.
- Haines, V., Hurlbert, J., & Beggs, J. (1996). Exploring the determinants of support provision: Provider characteristics, personal networks, community contexts, and support following life events. *Journal of Health & Social Behavior*, 37(3), 252–64.
- Hammer, M. (1981). Social supports, social networks, and schizophrenia. *Schizophrenia Bulletin*, 7(1), 45.
- Harasim, L., Hiltz, S. R., Teles, L., & Turoff, M. (1995). *Learning networks: A field guide to teaching and learning online*. Cambridge, MA: The MIT Press
- Hathaway, R. S., Nagda, B. A., & Gregerman, S. R. (2002). The relationship of undergraduate research participation to graduate and professional education pursuit: an empirical study. *Journal of College Student Development*, 43(5), 614-631.
- Haythornthwaite, C., Kazmer, M. M., Robins, J., & Shoemaker, S. (2000). Community development among distance learners: Temporal and technological dimensions. *Journal of Computer-Mediated Communication*, 6(1), 0-0.
- Hill, J. R., Song, L., & West, R. E. (2009). Social learning theory and web-based learning environments: A review of research and discussion of implications. *The American Journal of Distance Education*, 23, 88–103.
- Hillery, G. A. (1982). *A research odyssey: Developing and testing a community theory*. New Brunswick, NJ: Transaction Publishers.
- Hiltz, S. R., & Goldman, R. (2005). *Learning together online: Research on asynchronous learning networks*. Mahwah, NJ: Lawrence Erlbaum Associates
- Holmes, J. A., Meditz, J. A., & Sommers, P. M. (2008). Athletics and alumni giving: Evidence from a highly selective liberal arts college. *Journal of Sports Economics*, 9(5), 538-552.
- House, J. S. (1981). *Work stress and social support*. Reading, MA: Addison-Wesley.
- Hoyt, J. E. (2004). Understanding Alumni Giving: Theory and Predictors of Donor Status. *Online Submission*. Paper presented at the Annual Forum of the Association for Institutional Research (44th, Boston, MA, May 28-Jun 2, 2004).

- Hunter, K. S. (1997). *A study of the relationships between alumni giving and selected characteristics of alumni donors of Livingstone College*. (Doctoral Dissertation, Fayetteville State University).
- Hurst, F. M. (2008). *Philanthropic giving preference differences: Nontraditional and traditional alumni at Northern Arizona University* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3321618)
- Jackson, E.F., Bachmeier, M.D., Wood, J.R. & Craft, E.A. (1995). Volunteering and charitable giving: do religious and associational ties promote helping behavior? *Nonprofit and Voluntary Sector Quarterly*, 24, 59-78.
- Jehng, J. C. J., Johnson, S. D., & Anderson, R. C. (1993). Schooling and students' epistemological beliefs about learning. *Contemporary Educational Psychology*, 18(1), 23-35.
- Johnson, J. W., Thomas, V., & Peck, J. (2010). Do specialized MBA programs cultivate alumni relationships and donations? *Journal of Marketing for Higher Education*, 20(1), 119-134.
- Kaplan, A. E. (2014). Colleges and universities raise \$33.80 billion in 2013: Giving at Highest Recorded Level. Council for Aid to Education [Press release]. Retrieved from: <http://cae.org/images/uploads/pdf/VSE-2013-Press-Release.pdf>
- Ketter, J. W. (2013). *Predictors of Alumni Donor Behavior in Graduates of the Traditional MBA and iMBA Programs at The Pennsylvania State University*. (Doctoral dissertation, The Pennsylvania State University). Retrieved from the Penn State electronic thesis and dissertations collection. <https://etda.libraries.psu.edu/catalog/19330>
- Lara, C., & Johnson, D. K. (2008). The anatomy of a likely donor: Econometric evidence on philanthropy to higher education. Colorado College Working Paper No. 2008-05, Colorado College, Colorado Springs, CO. Retrieved from: [http://dacc.coalliance.org/fedora/repository/object\\_download/coccc%3A2610/AnatomyofaDonor.pdf/AnatomyofaDonor.pdf](http://dacc.coalliance.org/fedora/repository/object_download/coccc%3A2610/AnatomyofaDonor.pdf/AnatomyofaDonor.pdf) (accessed August 6, 2015)
- Lasher, W. F., & Cook, W. B. (1996). Toward a theory of fund raising in higher education. *The Review of Higher Education*, 20(1), 33-51.
- Leech, N. L., Barrett, K. C., & Morgan, G. A. (2015). *IBM SPSS for intermediate statistics: Use and interpretation*. New York, NY: Routledge.
- Lesht, F., & Schejbal, D. (2002). Will Distance Alumni Become Donors? *Distance Education Report*, 6(14), 8.
- Lindahl, W. E., & Conley, A. T. (2002). Literature review: Philanthropic fundraising. *Nonprofit Management and Leadership*, 13(1), 91-112.

- Lindahl, W.E. & Winship, C. (1994). A logit model with interactions for predicting major gift donors. *Research in Higher Education*, 35(6), 729-743.
- LinkedIn. (n.d.). Retrieved February 15, 2016 from Wikipedia: <https://en.wikipedia.org/wiki/LinkedIn>
- Liu, X., Magjuka, R. J., Bonk, C. J., & Lee, S. H. (2007). Does sense of community matter. *Quarterly Review of Distance Education*, 8(1), 9-24.
- Mael, F., & Ashforth, B. E. (1992). Alumni and their alma mater: A partial test of the reformulated model of organizational identification. *Journal of organizational Behavior*, 13(2), 103-123.
- Martin, M.W. (1994) *Virtuous Giving: Philanthropy, Voluntary Service, and Caring*, Indiana University Press, Bloomington, Indiana.
- McAlexander, J. H., & Koenig, H. F. (2001). University experiences, the student-college relationship, and alumni support. *Journal of Marketing for Higher Education*, 10(3), 21-44.
- McAlexander, J. H., Koenig, H. F., & Schouten, J. W. (2005). Building a university brand community: The long-term impact of shared experiences. *Journal of Marketing for Higher Education*, 14(2), 61-79.
- McDearmon, J.T. & Shirley, K. (2009). Characteristics and institutional factors related to young alumni donors and non-donors. *International Journal of Educational Advancement*, 9, 83-95.
- McGrath, J. E. (1984). *Groups: Interaction and performance* (Vol. 14). Englewood Cliffs, NJ: Prentice-Hall.
- McInnerney, J. M., & Roberts, T. S. (2004). Online learning: Social interaction and the creation of a sense of community. *Educational Technology & Society*, 7(3), 73-81.
- McIsaac, M. S., & Gunawardena, C. N. (1996). Distance education. In D.H. Jonassen (Ed.), *Handbook of research for educational communications and technology*, pp. 403-437, New York, NY: Simon & Schuster.
- McMillan, D. W. (1996). Sense of community. *Journal of community psychology*, 24(4), 315-325.
- McMillan, D. W. & Chavis, D. M. (1986). Sense of community: A definition and theory. *Journal of Community Psychology*, 14(1), 6-23.

- Melchiori, G. S. (1988). Applying alumni research to fundraising. In M. Melchiori (ed.), *Alumni Research: Methods and Applications. New Directions for Institutional Research, No 60*, pp. 51-65, San Francisco, CA: Jossey-Bass.
- Moore, M. M. (2014). *What makes them want to give?: Factors that influence the propensity for alumni giving among students in online master's programs*. (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3635755)
- Monks, J. (2003). Patterns of giving to one's alma mater among young graduates from selective institutions. *Economics of Education Review*, 22(3), 121-130.
- Morgan, G. A., Leech, N. L., Gloeckner, G. W., & Barrett, K. C. (2013). *IBM SPSS for introductory statistics: Use and interpretation*. New York, NY: Routledge.
- Mulugetta, Y., Nash, S., & Murphy, S. H. (1999). What makes a difference: Evaluating the Cornell tradition program. In J. Pettit and L. H. Litten, (eds.) *A New Era of Alumni Research: Improving Institutional Performance and Better Serving Alumni. New Directions for Institutional Research, No. 101*, pp. 61-79, San Francisco, CA: Jossey-Bass.
- Okunade, A. A. (1993). Logistic regressions and probability of business school alumni donations: Micro-data evidence. *Education Economics*, 1(3), 243-254.
- Okunade, A. A. (1996). Graduate school alumni donations to academic funds: micro-data evidence. *American Journal of Economics and Sociology*, 55(2), 213-229.
- Okunade, A. A., & Berl, R. L. (1997). Determinants of charitable giving of business school alumni. *Research in Higher Education*, 38(2), 201-214.
- Okunade, A. A., & Wunnava, P. V. (2011). *Alumni Giving of Business Executives to the Alma Mater: Panel Data Evidence at a Large Metropolitan Research University* (No. 5428). Institute for the Study of Labor (IZA).
- Okunade, A. A., Wunnava, P. V., & Walsh Jr., R. (1994). Charitable alumni giving: Micro-data evidence from a large public university. *American Journal of Economics and Sociology* 53(1), 73-84.
- Terenzini, P. T., & Pascarella, E. T. (1991). Twenty years of research on college students: Lessons for future research. *Research in Higher Education*, 32(1), 83-92.
- Passerini, K., & Granger, M. J. (2000). A developmental model for distance learning using the Internet. *Computers & Education*, 34(1), 1-15.
- Pearson, W. E. (1996). *A study of donor predictability among graduates of a school of education within a research I, public university*. (Doctoral Dissertation, University of Virginia).

- Perkins, D.D., Florin, P., Rich, R.C., Wandersman, A., & Chavis, D. (1990). Participation and the social and physical environment of residential blocks: Crime and community context. *American Journal of Community Psychology, 18*, 83–115.
- Poock, M. C., & Siegel, D. J. (2005). Benchmarking graduate school development practices. *International Journal of Educational Advancement, 6*(1), 11-19.
- Riger, S., & Lavrakas, P. J. (1981). Community ties: Patterns of attachment and social interaction in urban neighborhoods. *American journal of community psychology, 9*(1), 55-66.
- Rovai, A. P., & Wighting, M. J. (2005). Feelings of alienation and community among higher education students in a virtual classroom. *Internet & Higher Education, 8*(2), 97-110.
- Rovai, A. P., Wighting, M. J., & Lucking, R. (2004). The Classroom and School Community Inventory: Development, refinement, and validation of a self-report measure for educational research. *Internet & Higher Education, 7*(4), 263-280.
- Rovai, A. P. (2002a). Building sense of community at a distance. *International Review of Research in Open and Distance Learning, 3*(1), 1-16.
- Rovai, A. P. (2002b). Sense of community, perceived cognitive learning and persistence in asynchronous learning networks. *Internet & Higher Education, 5*(4), 319-332.
- Rovai, A. P. (2002c). Development of an instrument to measure classroom community. *The Internet and Higher Education, 5*(3), 197-211.
- Rovai, A. P. (2001). Building classroom community at a distance: A case study. *Educational Technology Research and Development, 49*(4), 33-48.
- Rubin, D. B. (2004). *Multiple imputation for nonresponse in surveys* (Vol. 81). Hoboken, NJ: John Wiley & Sons.
- Rudolph, F. (1990). *The American college and university: A history*. Athens, GA: University of Georgia Press.
- Sarason, S.B. (1974). *The psychological sense of community: Prospects for a community psychology*. San Francisco, CA: Jossey-Bass.
- Sargeant, A., & Shang, J. (2012). How we make donors feel: The relationship between premium benefit level and donor identity esteem. *International Journal of Nonprofit and Voluntary Sector Marketing, 17*(3), 157-171.
- Schervish, P. G., & Havens, J. J. (1997). Social participation and charitable giving: a multivariate analysis. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 8*(3), 235-260.

- Schmidt, J. C. (2001). *Mining philanthropic data: Models for predicting alumni/us giving at a medium-sized public master's university*. (Dissertation, University of Minnesota).
- Schoenfeld, G. (2014). Alumni Perspectives Survey, 2014. Survey Report. *Graduate Management Admission Council*.
- Schoenfeld, G. (2004). Alumni Perspectives Survey, 2004. Survey Report. *Graduate Management Admission Council*.
- Simonson, M. (1995). Does anyone really want to learn at a distance?. *TechTrends*, 40(5), 12-12.
- Simonson, M. (1999). Equivalency theory and distance education. *TechTrends*, 43(5), 5-8.
- Simonson, M., Schlosser, C., & Hanson, D. (1999). Theory and distance education: A new discussion. *American Journal of Distance Education*, 13(1), 60-75.
- Simonson, M., Smaldino, S., Albright, M., & Zvacek, S. (2000). *Teaching and learning at a distance: Foundations of online education*. Upper Saddle River, NJ: Pearson.
- Skari, L. A. (2014). Community college alumni predicting who gives. *Community College Review*, 42(1), 23-40.
- Sun, X., Hoffman, S.C., & Grady, M.L. (2007). A multivariate causal model of alumni giving: Implications for alumni fundraisers. *International Journal of Educational Advancement*, 7, 307-332.
- Taylor, A.L. & Martin, J.C. (1995). Characteristics of alumni donors and non-donors at a research I public university. *Research in Higher Education*, 36(3), 283-302.
- Tiger, A., & Preston, L. (2013). Logged in and connected? A quantitative analysis of online course use and alumni giving. *American Journal of Business Education (AJBE)*, 6(3), 361-370.
- Tinto, V. (1993). Building Community. *Liberal Education*, 79(4), 16-21.
- Tinto, V. (2003). Learning better together: The impact of learning communities on student success. *Higher Education monograph series*, 2003-1. Higher Education Program, School of Education, Syracuse University, 1-8.
- Tom, G. & Elmer, L. (1994). Alumni willingness to give and contribution behavior. *Journal of Services Marketing*, 8(2), 57-62.
- USDLA, (2012). United States Distance Learning Association, glossary of terms. Retrieved from [http://www.usdla.org/assets/pdf\\_files/Glossary\\_Distance.pdf](http://www.usdla.org/assets/pdf_files/Glossary_Distance.pdf)



- van der Poel, M. (1993). *Personal networks: A rational-choice explanation of their size and composition*. Lisse, Netherlands: Swets & Zeitlinger.
- Walker, J., Wasserman, S., & Wellman, B. (1994). Statistical models for social support networks. In S. Wasserman & J. Galaskiewicz, (Eds.), *Advances in social network analysis* (pp. 53–78). Thousand Oaks, CA: Sage Publications.
- Weerts, D.J. & Ronca, J.M. (2007). Profiles of supportive alumni: Donors, volunteers, and those who “do it all.” *International Journal of Educational Advancement*, 7, 20-34.
- Weidman, J. C., Twale, D. J., & Stein, E. L. (2001). *Socialization of Graduate and Professional Students in Higher Education: A Perilous Passage? ASHE-ERIC Higher Education Report, Volume 28, Number 3. Jossey-Bass Higher and Adult Education Series*. Jossey-Bass, San Francisco, CA.
- Wellman, B. (1999). The network community: An introduction to networks in the global village. In Wellman, B. (Ed.) *Networks in the global village* (pp. 1–48). Boulder, CO: Westview Press.
- Westheimer, J., & Kahne, J. (1993). Building school communities: An experience-based model. *Phi Delta Kappan*, 75, 324-324.
- Whitby, S. (2014). *Are 100% Online Students Interested in Becoming Engaged Alumni?* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3630058)
- Wighting, M. J., Liu, J., & Rovai, A. P. (2008). Distinguishing sense of community and motivation characteristics between online and traditional college students. *Quarterly Review of Distance Education*, 9(3), 285-295.
- Wighting, M., Nisbet, D., & Spaulding, L. S. (2009). Relationships between sense of community and academic achievement: A comparison among high school students. *The International Journal of the Humanities*, 7(3), 63-72.
- Wunnava, P. & Lauze, M. (2001). Alumni giving at a small liberal arts college: evidence from consistent and occasional donors. *Economics of Education Review*, 20( 1), 533-543.
- Young, P. S., & Fischer, N. M. (1996). Identifying Undergraduate and Post-College Characteristics that May Affect Alumni Giving. AIR 1996 Annual Forum Paper.

## APPENDIX A: SURVEY INSTRUMENT

### MBA Alumni Survey

#### Part One

1. Please indicate your affiliation with Colorado State University.  
 MBA Graduate  
 Former MBA student (did not complete degree)  
 Other
2. Please indicate your gender.  
 Female  
 Male
3. Please specify your age.  
\_\_\_\_\_
4. What is your citizenship?  
 US Citizen  
 US Permanent Resident  
 Other, non-US Citizen  
4a. If US Citizen, what is your race/ethnicity?  
 American Indian or Native Alaskan  
 Asian  
 Black or African American  
 Caucasian/White non-Hispanic  
 Hispanic or Latino  
 Native Hawaiian or other Pacific Islander  
 Multiracial
5. What is your current employment status?  
 Part-time employed  
 Full-time employed  
 Unemployed  
 Disabled
6. Are you currently employed by the institution where you pursued your MBA?  
 Yes  
 No
7. Do you have any dependents (spouse, son, or daughter) currently enrolled at the same institution where you pursued your MBA?  
 Yes  
 No
8. Did you pursue any other academic program (e.g. undergraduate degree) from the same institution as your MBA program?  
 Yes  
 No
9. What year was your MBA awarded?  
\_\_\_\_\_
10. Which of the following best describes your status during your MBA studies:  
 Full-time student

- \_\_\_\_\_Part-time student
11. How did you pay for your MBA degree? Check all that apply.
- \_\_\_\_\_Government Grants/Loans
- \_\_\_\_\_GI Bill
- \_\_\_\_\_Scholarship from MBA program/University
- \_\_\_\_\_Personal savings/resources
- \_\_\_\_\_Private loans
12. Have you made a financial gift to your *undergraduate* institution?
- \_\_\_\_\_Yes
- \_\_\_\_\_No
- 12a. If yes, what dollar amount best describes the gift you last made?
- \_\_\_\_\_ \$
13. Have you made a financial gift to your graduate (MBA) institution?
- \_\_\_\_\_Yes
- \_\_\_\_\_No
- 13a. If yes, what dollar amount best describes the gift you last made?
- \_\_\_\_\_ \$
- 13b. If yes, to where did you direct your gift?
- \_\_\_\_\_College of Business Fund/Scholarship
- \_\_\_\_\_University Fund/Scholarship
- \_\_\_\_\_Athletics
- \_\_\_\_\_Other non-College of Business activity/fund
- 13c. If yes, did you experience any difficulty following the university's process for giving a gift?
- \_\_\_\_\_Yes
- \_\_\_\_\_No
- 13d. If no, was the primary reason you did not give a result of any difficulty you experienced following the university's process for giving a gift?
- \_\_\_\_\_Yes
- \_\_\_\_\_No
- 13e. If no, do you intend to make a future gift to your graduate (MBA) institution?
- \_\_\_\_\_Yes
- \_\_\_\_\_No
- 13ei. If yes, what dollar amount best describes the gift you intend to initially make?
- \_\_\_\_\_ \$
- 13eii. If yes, what type of gift would you likely make?
- \_\_\_\_\_Cash (e.g., personal check or credit card)
- \_\_\_\_\_Securities (e.g., stocks)
- \_\_\_\_\_Planned gift (e.g., bequest)
- \_\_\_\_\_In kind (e.g., real estate)
- \_\_\_\_\_Other
- 13eiii. If yes, where would you like your gift directed?
- \_\_\_\_\_Greatest need determined by College of Business
- \_\_\_\_\_Financial support for MBA students (scholarships)
- \_\_\_\_\_Greatest need determined by University
- \_\_\_\_\_University Athletics

- Research/Faculty support
- Career services support
- Facility/Technology improvements
- Library support
- Other

14. Do you typically donate to churches, charities, or other causes?

- Yes
- No

15. Have you ever been asked to make a financial gift to your graduate (MBA) institution?

- Yes
- No

16. What type of MBA program did you pursue (check the best option below)?

- CSU's Professional *Traditional* MBA– face-to-face with all content delivered physically on-campus
- CSU's Professional *Online* MBA– where the vast bulk of course content was delivered online
- Other business degree/program offered by CSU

#### Part Two

The following questions ask you to reflect on your MBA experience. Please take a moment to think back on your time as a graduate student and answer these questions to the best of your ability.

17. Did you participate in Orientation as a new MBA student?

- Yes
- No

18. How many times each semester, on average, did you meet with an academic adviser while pursuing your MBA (include meetings held face-to-face/remotely/via phone/via teleconferencing)?

\_\_\_\_\_

19. How many times each semester, on average, did you meet to participate in an extra-curricular club activity while pursuing your MBA (include meetings held face-to-face/remotely/via phone/via teleconferencing)?

\_\_\_\_\_

20. How many times each semester, on average, did you meet with any member of the College of Business Career Management Center office during your MBA program (include meetings held face-to-face/remotely/via phone/via teleconferencing)?

\_\_\_\_\_

21. How many times each semester, on average, did you meet with classmates outside of class while pursuing your MBA (include meetings held face-to-face/remotely/via phone/via teleconferencing)?

\_\_\_\_\_

22. How many times each semester, on average, did you meet with MBA alumni outside of class while pursuing your MBA (include meetings held face-to-face/remotely/via phone/via teleconferencing)?

\_\_\_\_\_

23. Have you participated in any activities (e.g., networking, recruitment, alumni events) sponsored by your graduate (MBA) institution since completing your MBA studies?

Yes

No

### Part Three

Directions: Below you will see a series of statements concerning your MBA experience. Read each statement carefully. For each statement, select the response that comes closest to how you feel about your MBA experience. There are no correct or incorrect responses. If you neither agree nor disagree with a statement or are uncertain, choose the neutral (N) selection. Do not spend too much time on any one statement, but give the response that seems to describe how you feel. Please respond to all items.

Strongly agree (SA); Agree (A); Neutral (N); Disagree (D); Strongly disagree (SD)

1. I had friends in this program to whom I could tell anything  
(SA) (A) (N) (D) (SD)
2. I felt that this program satisfied my educational goals  
(SA) (A) (N) (D) (SD)
3. I felt that I mattered to other students in this program  
(SA) (A) (N) (D) (SD)
4. I felt that this program gave me ample opportunities to learn  
(SA) (A) (N) (D) (SD)
5. I felt close to others in this program  
(SA) (A) (N) (D) (SD)
6. I felt that this program did not promote a desire to learn  
(SA) (A) (N) (D) (SD)
7. I regularly talked to others in this program about personal matters  
(SA) (A) (N) (D) (SD)
8. I shared the educational values of others in this program  
(SA) (A) (N) (D) (SD)
9. I felt that I could rely on others in this program  
(SA) (A) (N) (D) (SD)
10. I am satisfied with my learning in this program  
(SA) (A) (N) (D) (SD)

## APPENDIX B: PERMISSION FOR USE OF CSCI INSTRUMENT

7/16/2015

Gmail - Permission to adapt your Classroom and School Community Inventory (CSCI)



E.E. Guild

### Permission to adapt your Classroom and School Community Inventory (CSCI)

Alfred Rovai   
To: "e.e. guild"

Thu, Jul 16, 2015 at 6:55 PM

Good afternoon,

You may adapt and use the CSCI as you describe. Make sure you cite the source Internet & Higher Education journal article in any report you write.

Best wishes,

Alfred P Rovai, PhD

Sent from my iPhone

On Jul 16, 2015, at 6:51 PM, e.e. guild  wrote:

Dear Dr. Rovai,

My name is Erin Guild and I am a doctoral candidate in the School of Education at Colorado State University. I am writing to request permission to adapt your Classroom and School Community Inventory (CSCI) for my research study.

My dissertation is tentatively titled "Examining factors that influence alumni giving in traditional and online MBA programs at Colorado State University." A focus of my planned study is the relationship between sense of community and alumni giving.

I wish to adapt your instrument, with your permission, in the following ways.

1. Because my proposed survey participants are alumni and not active students, I wish to adapt your CSCI by changing the verb tense of the instrument to past tense.
2. The second adaptation I would like to make would be to change the language that refers to the participant's "school" to language that reflects their attendance in a specific graduate "program."
3. I hope to offer the CSCI via an online survey and not in-person, and would, therefore, like to change the directions of the instrument accordingly.
4. And finally, because I am looking at the overall sense of community experienced by students, and not in one particular class, I hope to make use of just part II (the Self-report questionnaire—school form).

I would be grateful to make use of the CSCI in my study and look forward to providing you with any additional information you might like.

Sincerely yours,

Erin Guild  
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