This is to certify that the

dissertation entitled

presented by

Rachel A. Snyder

has been accepted towards fulfillment
of the requirements for

Ph.D degree in Admin

Major professor

Date March 18, 1993

AN ANALYSIS OF CHARITABLE GIVING PRACTICES OF RECENT OPTOMETRY ALUMNI AT SELECTED INSTITUTIONS AND THEIR ALUMNI DONOR SUPPORT

By

Rachel A. Snyder

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Educational Administration

1993

ABSTRACT

AN ANALYSIS OF CHARITABLE GIVING PRACTICES OF RECENT OPTOMETRY ALUMNI AT SELECTED INSTITUTIONS AND THEIR ALUMNI DONOR SUPPORT

By

Rachel A. Snyder

The financing of higher education has changed rapidly in the last decade. Colleges and universities have been forced to raise tuition, cut services and programs, and seek additional funding from outside sources. Limited information is available regarding charitable giving practices of alumni. No studies have been done investigating optometry alumni donor behavior.

The purpose of this study was to identify charitable giving practices as related to optometry alumni donor giving. Seven research questions and 20 hypotheses guided the study.

A random sample was taken of those optometrists who graduated from the Ferris State University College of Optometry and the Indiana University School of Optometry from 1979 through 1989. A survey was sent to the sample; 106 (55.7%) responses were received from Ferris State graduates, and 80 (32%) responses were received from Indiana graduates. The overall response rate was 42%.

Of the statistical tools used in testing the hypotheses, the Pearson product-moment correlation coefficient and the biserial

correlation coefficient provided significance at the .05 or .01 level for the data. Eight dependent variables were used to indicate the respondents' typical annual gift to higher education (optometry alumni associations and undergraduate alumni associations) and to other gift recipients (church, the United Way, health associations, environment groups, the arts, and others).

Eleven of the 20 null hypotheses were rejected for significance. No relationships existed between self-reported donor giving and the recommendation of optometry as a career, gender, year of graduation, undergraduate school attended, population of practice area, whether respondents were actively practicing optometry, state where currently practicing, mode of practice selected, or recruiting of students for optometry. Qualitative findings indicated that faculty, instruction, and the development of peer relationships had a major influence on whether or not respondents enjoyed their optometric college experience. Respondents also thought that their inability to provide donor support to certain organizations was the result of loan obligations and income levels.

The data indicated that certain behavioral and demographic characteristics may be useful in building a profile of optometry alumni donors that can be used by optometry schools to develop a lifelong financial commitment by alumni.

Dissertation Advisor: Dr. Louis Hekhuis

To my brother, Christopher Snyder, O.D., M.S.,

for his commitment to optometric education.

ACKNOWLEDGMENTS

This work would not have been possible without the help of many people. My appreciation is extended to them for their support.

Dr. Louis Hekhuis, chair of the committee and advisor during the writing of the dissertation. Dr. Eldon Nonnamaker, Dr. Fred Whims, and Dr. Richard Ball for their time and effort as committee members.

Dr. Fred Swartz, Ferris State University, for his support and work with the statistical methods used in the dissertation, and Penny Papo and Linda Burnes for their technical support.

Dr. Jack Bennett, Dean of the School of Optometry at Indiana University, and his staff for unconditional support of the research needed for this study. I am forever indebted.

Dr. Allan Lewis, Dean of Optometry, Ferris State University, for support of the research project.

Dr. Douglas Poorman, Vice President, Southern College of Optometry, for his words of encouragement over the many years of classes and writing.

Dr. Alden N. Haffner, President, State University of New York, State College of Optometry, and Dr. Philomena Mantella for their support of educational externships.

Susan Cooley, typist and editor, for working on short deadlines to provide a final copy.

Joe and Cynthia DiBello for opening their home to me during sabbatical leave.

Dr. Michael Cairns and his family for the rare gift of friendship.

Jo Colby for her friendship and effort on my behalf at school and the hockey arena.

My family and Tom Schumann for all their support and love through a difficult time.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION TO THE STUDY

In this chapter, the background and statement of the problem are presented, followed by the purpose of the study. The research questions and hypotheses used to guide the study are presented, and limitations, definitions of terms, and significance of the study are discussed. Finally, each chapter is reviewed as it relates to the organization of the study.

Background

The financing of higher education has changed rapidly in the last decade. Colleges and universities have been forced to raise tuition, cut services and programs, and seek additional funding from outside sources as state and federal resources have declined. According to Gold (1990), the states are the single largest supporters of higher education. During the 1980s, tuition was increased to offset state spending on health care and corrections (Gold, 1990). Federal tax reform provided an opportunity for states to shift their emphasis back to education, yet the gap continued to widen as states chose to lower taxes (Gold, 1990).

One alternative to the funding of higher education by institutions has been to shift the fund-raising effort to endowments and charitable contributions (Franck, 1987). Franck stated that

"the long-range effect on the contribution base for tax-exempt organizations is not known with any certainty, but economists have generally predicted that an increase in the cost of contributing will reduce the level of contributions to some degree" (p. 13). Franck further stated that, with the elimination of deductions for charitable contributions for non-itemizers, "this may be a disincentive for smaller donors, such as recent alumni" (p. 13). It is likely that, in those states with a bleak economic outlook, state-supported institutions of higher education must broaden their efforts for alumni donor support.

Carbone (1986) noted that "general theories are not available for the guidance of fund-raising practitioners" (p. 22). There is a need to "increase the theoretical component of the field" (p. 22).

Institutions support a variety of curricula within their individual missions. Those with health care curricula at the professional level have had a particularly difficult time keeping up with technological advances as federal and state funding levels decline. Tuition rates continue to increase, but at a slower pace than the increasing costs for faculty, equipment, and maintenance. Increases in private philanthropic support are necessary to maintain and improve these levels of quality education in the 1990s. The onus of higher education funding will fall heavily on the institutions and their ability to raise funds to further supplement operational and academic needs into the twenty-first century.

Statement of the Problem

Private philanthropists in the United States have supported the needs of higher education since John Harvard's donation of a library and money for the support of what would become Harvard University (Brittingham & Pezzullo, 1991; Curti & Nash, 1965; McCarthy, 1989). Since that time, institutions have sought external support for buildings, programs, activities, and support services.

Brittingham and Pezzullo (1990) stated that "in recent years, the challenge of raising private funds has become increasingly important for both public and private institutions of higher education" (p. 1). Whereas private philanthropy has traditionally been pursued by private universities, the higher education funding climate today finds public institutions seeking a portion of available monies. Federal support of higher education, although strong in the early 1960s, significantly decreased during the 1980s. Further decreases are expected in the 1990s as the burden of higher education financing is shifted back to the states (Gold, 1990). Nearly half of the states provided 1991 levels of higher education funding or less in 1992 (National Education Association [NEA], 1992).

Institutions of higher education need additional avenues of support in order to meet the needs of the physical plant, academics, student services, and human resources. Historically, alumni support has been solicited to provide funds for immediate and discretionary use by the institution (Brittingham & Pezzullo, 1991). In 1989, almost 25% of the voluntary support to higher education came from

alumni (Council for Financial Aid to Education, 1989), and 26% came in 1992 ("Voluntary Support," 1992). Yet, alumni support is an avenue that has not yet reached its potential in providing support for higher education.

According to Melchiori (1988), "little research has been done regarding the attitudes of alumni and their donor behavior during the last several decades" (p. 5). Although there has been a modest increase in alumni research since 1988, Melchiori noted that institutional surveys have focused on

> the data that [are] useful to the institution for the purposes of record-keeping, donor solicitation, and major gifts campaigns. Institution-specific data on alumni [are] necessary for universities to hypothesize donor giving expectations within the realm of alumni giving programs. (p. 7)

Studies on donor behavior and motivation have indicated that a variety of factors influence a person's desire to give financial or volunteer support. Brittingham and Pezzullo (1991) found that:

> Research on private giving suggests that motivations for and patterns of giving differ significantly by the circumstances of the donor and the target of the gifts; the circumstances and motivations for giving to religion, education, charity, and the arts differ in significant ways. Overall studies of private giving reveal a U-shaped curve, with the largest giving, as a percentage of income, among the least and the most affluent. (p. 36)

According to Kotler (1982), "'altruism' tends to mask the complex motives that underlie giving or helping behavior" (p. 427). Donors can be categorized as "responsible, responsive, or compulsive" (p. 428).

Brakeley (1980) found that, when all the key factors of donor motivation are studied, altruism is generally included. But many

factors are interrelated, and none appears to stand alone when identifying individuals' donor motivations.

Over the years, researchers have investigated the underlying reasons for why people give. The results of these studies have been varied, offering limited support in identifying specific factors in donor motivation. No studies have been conducted with respect to optometry alumni and their donor behavior.

Optometric education is a four-year professional curriculum built on the required minimum of a three-year pre-optometry course of study at an accredited institution of higher education. The optometric profession provides entry-level access to the primary health care system for patients requiring vision care. The profession requires a minimum commitment of seven years of college training and State Board licensure for the practice of optometry. Even at state-supported colleges of optometry, such as Ferris State University and Indiana University, tuition costs and equipment fees can easily place a student in debt for $6,000 to $8,000 per year, not including living expenses.

Optometric education mandates an institutional commitment for financial support as changes in technology escalate equipment costs faster than the rate of inflation. While the annual costs of instruction, supplies, and equipment continue to increase, optometry schools have had to find supplemental financing to support the costs of providing high-quality optometric education.

Tuition costs have continued to rise, but increases have not kept up with the rate of educational inflation. As a result of the substantial financial effect of attending professional school, there may be limits to the ability of a recent optometry graduate to provide philanthropic support to his or her alma mater.

Little is known about the behaviors of optometry graduates with regard to philanthropic support of their professional school alma maters. No researchers have linked selected behavioral or demographic characteristics of optometry alumni with their propensity to provide either financial or altruistic volunteer donor support.

Purpose of the Study

The researcher's purpose in this study was to identify charitable giving practices as related to optometry alumni donor giving. The findings may provide information for the planning and implementation of alumni programs to target and strengthen university ties and alumni donor support.

Research Questions and Hypotheses

The following research questions and null hypotheses guided this study:

Research Question 1: What attitudes toward optometry are related to alumni donor support?

Ho 1.1: There is no relationship between how respondents perceive the quality of their optometric education and their alumni donor support.

Ho 1.2: There is no relationship between respondents' recommendation of optometry as a career and their alumni donor support.

Ho 1.3: There is no relationship between whether respondents enjoyed their optometric college experience and their alumni donor support.

Ho 1.4: There is no relationship between how respondents perceive the importance of their financial support to others and their alumni donor support.

Research Question 2. What demographic characteristics are related to alumni donor support?

Ho 2.1: There is no relationship between respondents' age and their alumni donor support.

Ho 2.2: There is no relationship between respondents' gender and their alumni donor support.

Ho 2.3: There is no relationship between respondents' marital status and their alumni donor support.

Ho 2.4: There is no relationship between respondents' year of graduation and their alumni donor support.

Ho 2.5: There is no relationship between the undergraduate school respondents attended and their alumni donor support.

Ho 2.6: There is no relationship between respondents' receipt of financial aid and their alumni donor support.

Ho 2.7: There is no relationship between the population of the respondents' practice area and their alumni donor support.

Ho 2.8: There is no relationship between whether respondents are actively practicing optometry and their alumni donor support.

Ho 2.9: There is no relationship between the state where respondents are practicing optometry and their alumni donor support.

Research Question 3: Is there a relationship between student participation in organizations and alumni donor support?

Ho 3: There is no relationship between respondents' participation in organizations during optometry school and their alumni donor support.

Research Question 4: Is there a relationship between the individual's educational loan debt and alumni donor support?

Ho 4: There is no relationship between respondents' educational loan debt and their alumni donor support.

Research Question 5: Is there a relationship between mode of practice selected and alumni donor support?

Ho 5: There is no relationship between the mode of practice selected by respondents and their alumni donor support.

Research Question 6: Is there a relationship between income level and alumni donor support?

Ho 6: There is no relationship between respondents' income level and their alumni donor support.

Research Question 7: Is there a relationship between volunteer altruism and alumni donor support?

Ho 7.1: There is no relationship between respondents' current membership in organizations and their alumni donor support.

Ho 7.2: There is no relationship between respondents' current participation in organizations and their alumni donor support.

Ho 7.3: There is no relationship between the number of students respondents have recruited for optometry school and their alumni donor support.

Limitations

This study was conducted in view of the following limitations:

1. The study dealt only with graduates of the Ferris State University College of Optometry and the Indiana University School of Optometry. No attempt was made to include graduates of other optometry schools, either state supported or private, in the study.

2. The study was limited to those graduates from the years 1979 through 1989. This limitation was imposed because the first

graduating class of the Ferris Sate University College of Optometry was the class of 1979.

3. The study was limited by the behavioral and demographic variables included in the survey instrument.

4. The study was limited by the response rate of the random sample of alumni surveyed.

Definition of Terms

American Optometric Association (AOA) is an organization representing the interests of optometrists in both the political and educational arenas.

American Optometric Student Association (AOSA) is an extension of the AOA in which optometry students can become involved in the professional association.

Donor is "a person who donates; giver" (Webster's New World Dictionary, 1976). In this study, a donor was a person who provided financial or volunteer support to a selected activity. Because individual donor behavior was unknown before conducting the study, any dollar values were accepted, with no predetermined minimum for analysis purposes.

Educational loan debt refers to the total postgraduate loan debt accumulated for optometry school tuition and expenses.

Income level refers to the gross annual income of the respondent from the practice of optometry.

Mode of practice selected includes private practice (group or solo), multidisciplinary practice (both optometry and

ophthalmology), employed optometric situations (commercial), educational settings, research settings, and others.

Optometric college experiences include involvement in organizations in optometry, student government, optometric and service fraternities, Lions Club, and others.

Student Volunteer Optometric Services to Humanity (SVOSH) is the student arm of VOSH.

Volunteer altruism refers to respondent involvement in church, community, profession, and alma mater activities or financial support.

Volunteer Optometric Services to Humanity (VOSH) is an organization of volunteer optometrists dedicated to providing vision care to people in third-world countries.

Significance of the Study

In this study, an attempt was made to identify those behaviors and/or demographic characteristics that are related to alumni donor support and that the optometric college may use to build a plan for active alumni, in both voluntarism and activism, as well as financial support.

Organization of the Study

In Chapter I, the background of the study, statement of the problem, purpose of the study, research questions and hypotheses, limitations of the study, and definitions of key terms were presented.

The relevant literature related to the study is reviewed in Chapter II. The historical development of alumni donor giving, characteristics of donor behavior, and studies related to donor giving at institutions of higher education are examined.

The methodology for the study is discussed in Chapter III. The methodology includes the research questions, development of the survey questionnaire, determination of sample size, and methods for carrying out the study.

In Chapter IV, the data are presented, with a discussion of the results as they relate to the research questions and items on the survey instrument. The .05 level of significance was used in testing the hypotheses.

The results of the study are discussed and summarized in Chapter V. Conclusions drawn from the findings, recommendations for future research, and the writer's reflections also are presented.

CHAPTER II

REVIEW OF THE LITERATURE

The researcher's purpose in this study was to identify charitable giving practices as related to optometry alumni donor giving. A review of the literature was conducted relevant to the study of selected attitudinal and demographic characteristics of college and university alumni. The historical development of philanthropy, a review of donor behavior characteristics, studies related to donor giving in higher education, and optometric studies of alumni are discussed as they relate to optometric alumni donor giving.

History of Philanthropy in Public Higher Education

Educational support as it is known today "began as charity motivated by religious beliefs" (Brittingham & Pezzullo, 1991, p. 6). Early religion had a basis in the belief that the "world [was] created by a God who declared that He wanted men to make it a better place" (Payton, 1989, p. 31). Religious belief implied that the fortunate should aid those less fortunate and that little should be expected in return. The rewards of charitable behavior would come from a benevolent God and would not necessarily be rewarded in this life (Payton, 1989). Little has changed over the years of support

for the church as "the most favored charity is a church or religious organization" (White, 1989, p. 66).

The early 1600s marked the beginnings of the charitable trust under the rule of Elizabeth I in England. With this new philanthropic spirit, education received increased support, especially in the improvement of schools for the poor (Payton, 1989). These motivations for charity began to change in the 1600s in Tudor England, when "reforms divested the church of its capacity to care for the country's educational needs and for the ailing and the poor" (McCarthy, 1989, p. 47). By 1668, John Harvard was shaping educational philanthropy in America.

Throughout the seventeenth and eighteenth centuries, philanthropy continued to evolve from its charitable roots. Concerns about whether philanthropy and the poor were mutually feeding on each other led some to believe that the poor would never rise out of their plight as long as philanthropic donors existed (Payton, 1989). Thus, over time, charity became philanthropy or "less personal, more concerned with the betterment of human-kind rather than simply with the short-term alleviation of suffering" (Payton, 1989, p. 30).

As a result of changing values in European charity, early pioneers to America determined that their "communities would be better than, instead of different from, the ones they had known at home" (Bremmer, 1988, p. 7). The groundwork of educational philanthropy began as a positive force in the United States when John Harvard made a donation of land and a library for the support of

what would become Harvard University (Curti & Nash, 1965; McCarthy, 1989). In the United States, donor behavior began an evolution from charity toward educational philanthropy as it had in Europe. Brittingham and Pezzullo (1991) stated that in the last hundred years this shift "has come about largely as a result of an increased understanding of donors' motivation" (p. 33). Throughout this time, "the private donor to higher education has always played a far greater role in the U.S. than anywhere else in the world" (Freeman, 1965, p. 111).

The early beginnings of American philanthropic support of higher education have continued into the 1990s with the "main sources from which colleges and universities derive income [being the] private donors" (Cunningham, 1980, p. 63). Over the years, higher education has been supported and expanded mainly because of "private initiative and private funds" (Hungate, 1946, p. 111).

The emergence of foundations in the nineteenth century continued to redefine philanthropic behavior toward higher education as wealthy individuals began foundations to aid social concerns. Andrew Carnegie, benefactor of the Carnegie Foundation, thought that it was better to provide useful public institutions, like libraries and universities, to improve the community as well as the recipient (McCarthy, 1989; Payton, 1989). According to McCarthy, "government increasingly came to rely on foundations for research and aid in implementing national reforms" (p. 54). This represented a change in political philosophy from the days of the Depression, when

government had "entered the funding arena sponsoring projects that had traditionally been the province of the private largesse" (p. 60). The changes in funding of health curricula have come about as "philanthropic foundations have had a significant impact on [medical] education in the U.S." (Martini, 1991, p. 999).

During the 1980s and the Reagan administration, private funding was required to replace diminishing government revenues (Loessin, Duronio, & Borton, 1986). In the early 1990s, funding for public higher education is coming from a variety of sources, including government, foundations, tuition, and alumni gifts. As government's ability to adequately fund higher education continues to decline, institutions are finding it increasingly difficult to keep tuition affordable while maintaining an academic edge. There has been no improvement in reducing educational costs or increasing state budgets for higher education (Haddad, 1986).

New avenues of financial support for the university are constantly being sought for higher education institutions, including the improved donor support of alumni. "Financing of higher education through fund raising has long been a tradition in American colleges and universities (Loessin et al., 1986, p. 55). As recently as 1988, institutions still looked to alumni as a source of "additional financial resources" (Melchiori, 1988, p. 6), rather than as an on-going, broad-based constituency for institutional support. As institutions have increased their advancement efforts, alumni have been approached on a much broader basis to provide additional capital for the university and its needs. The success of

alumni giving has been due, in part, to an increased awareness of the needs of the institution (Payton, 1989).

Review of Characteristics of Donor Behavior

Donor Motivation

Behavioral scientists have looked at the motivational forces behind altruistic behavior for some time to determine what motivates a person to give financial support or volunteer time to a charitable cause. Only in the last few decades have behavior and motivation in altruism been linked to alumni by investigating their donor behavior.

Skinner (1978) postulated that people's need to help others comes from a desire to continue the species. "We help those who help us in return, and we stop doing so when they stop, [or] are ungrateful" (p. 250). The cessation of any altruistic behavior may come from a lack of return on the part of the recipient.

According to Wispe (1978), both biologists and behavioral scientists generally concur that altruism is the "focus on the welfare of the other person or persons" (p. 304) and "must involve at least some non-trivial self-sacrifice" (p. 305). There is a biological context to perpetuate the species, thus enabling the knowledge to transfer from generation to generation (Douglas, 1983). Whereas Wispe stated that cultural evolution allowed the development of altruistic behavior, Douglas (1983) raised the question of whether genetics are really part of altruistic behavior or whether people change their genetic make-up to conform.

Research in the behavioral aspect of donor giving and private philanthropy has indicated that people give not only for different reasons, but that their giving is often program-specific, with substantial differences among donors with regard to what and why they give.

Related to financial donor motivation are many reasons for why people volunteer their time. Brakeley (1980) indicated that "human beings want to be involved as worthwhile contributors to a worthwhile group or cause" (p. 88). He further stated that there are 20 factors associated with philanthropic motivation. Of these, five traits are common to most volunteers:

1. A commitment to a specific cause or institution which the volunteer is prepared to meet through personal and often financial effort.
2. The desire to meet a challenge head on--and win.
3. A wish to contribute to a "common good."
4. Availability of spare time required to function successfully as a worker for a cause.
5. The ego gratification that follows after success. (p. 88)

In a study of "Altruistic Motivations to Volunteer," Unger (1991) found that "if a donor's contributions increase as the needs of others increase, it suggests an altruistic motive" (p. 78). Unger further noted that a "positive impact on the volunteer" (p. 90) was found when related to community need, especially when the perceived need was greater than the real need.

Unger correlated volunteerism, need, and time; he found that "we volunteer not based on the amount of time we have available but

if something needs to be done" (p. 93). In a study by the Indiana University Center for Philanthropy ("Survey Reveals," 1992), it was found that Indiana volunteers gave the highest percentage of time to religion (45.6%), followed by 31.2% given to education. In the 1990s, "volunteerism is on the rise" (Salholz, 1992, p. 23; "Survey Reveals," 1992, p. 17).

Bakal (1979) found that "60% [volunteer] because of a desire to help people and 38% out of a sense of duty" (p. 77). Brittingham and Pezzullo (1990) indicated that a trend exists in which "donors are motivated by receiving 'good' in exchange for gifts" (p. 46). McIntyre (1981) noted that volunteers find self-fulfillment through the act of giving and eventually become financial donors. Bakal (1979) found that "the value of their unpaid labors probably exceeds the amount of money given to charity" (p. 71) and is worth billions in donated time to nonprofits (Schiff, 1989).

In their study of donor behavior, Leslie and Ramey (1988) found that "the main predictor of alumni contributions appears to be institutional prestige" (p. 125). Their findings supported increased donor giving from alumni in higher socioeconomic income brackets as well as those alumni seeking "enhancement of donor prestige" (p. 125). Alumni respond well to "critical financial need, shortfalls in state support [and] traditions of the institution and its prestige" (Leslie & Ramey, 1986, p. 130). In their 1983 study, Leslie and Ramey found that "institutional giving

increased as economic conditions worsened" (Coughlin & Erekson, 1986, p. 180).

The public image of the institution appears to be directly correlated to donor giving, and there is evidence to support increased alumni giving when the economic needs of the institution are made apparent (Leslie, 1988). As student populations continue to shift toward the nontraditional segment, institutions are forced to respond to a consumer-driven market (Green, 1990). Future institutional attitudes will be developed in this new market of educational consumers.

In his study of the free-rider principle and charity markets, Johnson (1982) suggested that several motives or incentives exist in donor behavior. In addition to religious and income motives, donors are motivated by "private market incentives" (p. 98). These incentives provide something in return for the donation, such as the naming of a campus building. These gifts often provide a tax incentive for the donor, as well (p. 98). Johnson further defined altruistic behavior as that which can be restricted to helping a particular group or person, or that of giving for the pleasure of giving with unrestricted gifts (p. 100).

In a United Way survey (Bakal, 1979), it was found that doctors give "less annually on a per capita basis ($62) to their local United Way than . . . dentists ($33)" (p. 35). Taking into account that there is often a discrepancy in spendable income between the two professions, optometry and dentistry are each independent professions separate from medicine.

It is difficult to identify specific motivations for giving based solely on giving patterns. Brittingham and Pezzullo (1991) indicated that the reasons for giving to the arts, religion, education, and charity vary greatly from person to person. However, giving patterns are usually the only concrete evidence to provide insight into philanthropic motivations.

If cultural evolution can influence giving, so, too, can personal evolution and changing interests. Joseph (cited in Magat, 1989) found that family culture and its influence on the development of altruistic behavior was a major factor in the family's subsequent philanthropic behavior. These personal experiences are reinforced by "literature, religion, experience of the community and social responsibility and dynamics of public life" (Magat, 1989, p. 9).

Kotler (1982) categorized donors into one of three types: (a) those who are responsible when donating, without being solicited; (b) those who are responsive to needs, donating when they are asked; and (c) those who are compulsive, donating when pressured (p. 482). Kotler further stated that altruism is very complex behavior and may be a broad generalization covering a variety of reasons for donor behavior.

Researchers have found that most giving is done by those at the top and bottom income levels (Bakal, 1979; Brittingham & Pezzullo, 1991; Magat, 1989). The distribution of gifts by these donors is diverse, as well. Bakal (1979) found that the wealthy gave to the arts, hospitals, and universities. Donors at the lower end of the

economic scale gave more to religion and their community. Bakal further noted that, although wealthy individuals donate more than any other group, "people in the lowest income brackets generally give a larger proportion of their take-home pay than most of those earning more" (p. 10). Salholz (1992) stated that "the very wealthy are the most likely to stop contributing during economic hard times," whereas those who have the least give the most (p. 23). A 1989 Gallup Poll for the independent sector found that those with incomes of less than $10,000 gave 5.5% of their income, versus 3.2% for those with incomes of $75,000 to $100,000. Researchers also have found that, "as Americans grow older, the higher the percentage of their income is given to charity, and also the greater the percentage of giving goes to religious charities" (White, 1989, p. 70). The amount of annual gifts given in the United States continues to rise every year, in spite of the state of the economy, recessions, inflation, and unemployment.

Voluntary support of higher education by alumni has risen steadily since the late 1980s. In 1988, 24.9% of the total giving to higher education was from alumni (Chronicle of Higher Education, 1989, p. 23), and in 1992, 26% of all giving to higher education was from alumni ("Voluntary Support," 1992, p. 34).

Tax Reform

Tax reform has had a limited effect on donor behavior over the last three decades, although giving is often attached to the tax policies in effect at the time of giving (Clotfelter, 1989b;

McCarthy, 1989). Frick (1986) noted that, in the philanthropic arena, the individual has control over tax breaks only in the area of charitable contributions. Studies have shown "increases when stock equities, bond yields and general inflation are down and taxes are up" (Leslie, 1986, p. 26). McCarthy (1989) indicated that "tax incentives undeniably helped to inspire charitable giving" (p. 57) and that "individual tax laws have been periodically redesigned to curb or inspire new gifts, reflecting the political temper of the times" (p. 59).

Changes in federal and state support to higher education began in the early 1980s, when the Economic Recovery Tax Act (ERTA) of 1981 resulted in changes in the tax rate and the loss of federal support for student loans (Robinson, 1985, p. 287). "ERTA provided for the gradual extension of the charitable deduction to non-itemizers over a five year period," and then "Congress reversed direction in the Tax Reform Act of 1986" (Clotfelter, 1989a, p. 105). Most notably, those in the high income tax brackets were the best donors to higher education, and the 1981 ERTA tax-rate reductions affected this group the most (Robinson, 1985, p. 29).

Changes that occurred with the Tax Reform Act of 1986 included loss of some government support, particularly to higher education. The act also "phased out the deductibility of interest on consumer and student loans" (Linger, 1991, p. 663). These losses have necessitated an increase in private philanthropic support to replace losses at the federal and state levels to higher education institutions. Clotfelter (1989a) voiced a "concern about the

adequacy of revenue sources for the nonprofit sector at the very time those same cuts increased the demand for many services provided by nonprofit organizations" (p. 106).

Franck, Anderson, and Bernard (1987) indicated that, although spendable income for private donors would increase, those unable to itemize would lose their tax deduction with the 1986 Tax Reform Act. Franck speculated that alumni in this tax category might not donate to the college (p. 14). Schiff (1989) believed that "if donors view time and money as substitutes [for each other], the reduction in money donations caused by tax reform may "increase volunteering" (p. 138). However, if they are viewed as dependent, "reductions in money donations may be accompanied by similar cutbacks in hours contributed" (p. 138).

Leslie (1979) speculated that the two major factors affecting donor behavior will be "the economy and changes in the tax laws" (p. 17). Harcleroad (1979) reported that "since higher education is one of the largest consumers of tax money in almost every state, the effects of tax resistance would be particularly traumatic" (p. 1). "Federal tax policy has a substantial impact on the level and distribution of charitable giving in the U.S." (Clotfelter, 1989a, p. 124).

Regardless of the tax laws in effect at any particular time, "variations in philanthropic contributions are closely related to variations in national income" (Hungate, 1946, p. 114).

> Giving will continue to be primarily an emotional experience in the years to come, as it is now, but donors surely will be more

> sophisticated and more discriminating. They will want to know more about the institution and will certainly be more knowledgeable about the modes of giving. They will want to place their money where it will have the greatest impact for good as good is defined by their perceptions (p. 369).

With the increase in restricted giving, "gift and endowment income to institutions is the major source of relatively unrestricted spending" (Leslie, 1979, p. 16). Frick (1986) indicated that the wave of the future in higher education finance is in planned giving from alumni (p. 367).

Need for Research

According to Grill (1988), donor giving is difficult to predict. Because nearly all research on alumni philanthropy has been conducted at private universities, it has been difficult to generalize results to the public sector. Carbone (1986) noted that much "alumni research has been conducted by research faculty and students pursuing graduate degrees" (p. 24; see also Melchiori, 1988; Pezzullo & Brittingham, 1990). Pezzullo and Brittingham found that "most fund raising studies come from graduate students who most often go into doctoral work after development work" (p. 45). This has resulted in studies with narrow foci and results that have been difficult to apply to the overall scope of fund raising.

According to Melchiori (1988), "although alumni constitute a social group of constantly growing importance, both in sheer numbers and in political and financial influence, no institutional databases compare their outcomes" (p. 5). Donors and their behavior and attitudes have not been researched as well as they could have been,

so little longitudinal information is available today (Melchiori, 1988). Although there has been a modest increase in alumni research since 1988, Melchiori pointed out that surveys have been institutional, focusing on data that are useful to the institution "for the purposes of record-keeping, donor solicitation, and major gifts campaigns" (p. 54). She noted that the whole business of identifying alumni and their donor potential is evolutionary in finding "the kinds of information needed to assess financial giving capabilities and the necessary attitudes on the part of the alumni" (p. 54).

More important, the research should be done first "to set general parameters in long range planning" (Melchiori, 1988, p. 64). Institution-specific data on alumni are necessary for universities to "hypothesize donor giving expectations within the realm of alumni giving programs" (p. 7). No studies have been done relating alumni attitudes or demographic characteristics to the donor support of optometry schools.

Donor predictability would place a public institution of higher education in an enhanced position for the solicitation of alumni support, both financially and voluntarily. Melchiori (1988) suggested that "by isolating the characteristics that distinguish alumni as providers, research can both identify potential providers and suggest methods of stimulating provider behavior" (p. 10).

Much alumni research today focuses on educational outcomes and assessment. When surveying these areas, institutions gain valuable academic information but lack information on the effect of "higher

education on lives, careers, opinions, interests and attitudes" (Melchiori, 1988, p. 6). Institutions tend to gather general alumni data when the need is for institution-specific data; consequently, there is very little information on demographic attitudes and general life patterns of alumni over time (pp. 6-7).

With trends indicating a shift away from unrestricted giving, there is a need for "careful research into donor interest," with previous preparation to link the donor with institutional needs (Hofmann, 1990, p. 70).

Administrative Use of Research

Maves (1988) noted that an institution must have adequate information on alumni to conduct research providing information on critical needs. Melchiori (1988) suggested that the planning of development programs must have a foundation in "more sophisticated analyses" (p. 51). Dunn (1986) further stated that "a thorough understanding of the present and future plans of the development office is necessary in seeking alumni information" (p. 30).

Melchiori (1988) found that administrators in higher education usually place alumni needs at or near the bottom of priority lists, thus limiting an institution's ability to capture and use alumni data. "The findings are not channeled back into budget allocation, student services, or any other operational service assessments" (p. 6). Administrators in institutions of higher education are not cognizant of how alumni research can be used in institutional planning (p. 6).

> In the past, institutions have had no concrete incentives to keep systematic track of alumni. Many of these recent efforts devoted to keeping track of alumni are the result of more aggressive marketing needs for prestige, students and additional financial resources. Alumni have been discovered as a crucial marketing target, but the tasks of locating and researching them have proved difficult. (Melchiori, 1988, p. 6)

Melchiori further stated that "the rapid increase in updating alumni records comes out of a need for additional financial resources" (p. 6). He also claimed that "links among central administrators, institutional researchers and academics, so productive in facilitating student and faculty research, so far have not developed in alumni research" (p. 7).

Alumni administration is the forerunner and foundation of the other components in the broader spectrum of institutional advancement (Ransdell, 1986, p. 373). It is critical to determine whether alumni are involved and, if so, whether they have a voice in institutional affairs. Alumni offer five important support roles to the institution: money, new students, advice, service, and ambassadorial representation (p. 380). Thus, it is important to "conduct constituency research which seeks to solicit and properly channel alumni opinions, suggestions, concerns, needs, [and] trends" (Ransdell, 1986, p. 383).

Surveys of alumni attitudes also can be used as planning tools (Bartolomeo, 1986). Bartolomeo built a case for discovering positive and negative alumni perceptions and making an effort to build the positive and change the negative. The answers to the questions "Do attitudes affect behavior?" and "Do attitudes affect

giving to the university?" can be discovered through survey research on alumni (Bartolomeo, 1986, p. 489).

Bartolomeo further believed that the profile of alumni may be that of a two-income household in which time is at a premium, thus limiting alumni activities. With the increasing competition for individual philanthropic dollars in the future, data on alumni attitudes are a necessity. Pertinent questions include: Who are the alumni with great institutional loyalty? How old are they? Do they provide for the university? Do they volunteer, provide money, or both? (Bartolomeo, 1986).

> But even if alumni relations has become more difficult to manage than it once was, one could argue that the alumni relations function has always faced challenges that survey research could help address. These challenges relate to the effectiveness of communications efforts, the effectiveness of various alumni relations programs and ways in which alumni attitudes toward their school can be improved and behaviors supportive of the university can be encouraged. (Bartolomeo, 1986, p. 486)

There is a widespread deficiency in the development of donor-information databases at institutions of higher education. This severely limits the ability to use information gathered in alumni survey research. "These databases are a relatively new necessity to alumni research with their foundation in the ability of the system to store data capable of being used for alumni research" (Strand, 1986, p. 337). Melchiori (1988) also noted the inability of institutions to gather and use the data on alumni. She noted that two major factors inhibit the use of information on alumni. First, "most institutions have 'poor' data systems for empirical research"; second, "the lack of demographic and attitudinal information on

alumni and donors drastically limits the variables available for analysis" (p. 54).

According to Schwartz (1986), the database should contain complete alumni information that is useful in identifying interests, achievements, and appointments to boards of corporations and foundations. Strand (1986) noted that "with the increase in need for usable alumni data, many institutions of higher education, particularly those that are public, have found that computer database capabilities are insufficient to process the necessary information for alumni solicitation (p. 377), and at the same time, the mechanics of storing and processing information should not outweigh the use of information.

Szady (1988) provided a three-step approach to the analysis of alumni data for institutional planning, using "data preparation, organization of data analysis and dissemination of the analysis" (p. 39).

Studies Related to Donor Giving in Higher Education

Until recently, little research has been done on alumni donor giving. When studies are done, often they are completed by faculty members who are not interested in "institution-specific data" (Melchiori, 1988, p. 7). More often, alumni research has been conducted by students pursuing graduate degrees (Carbone, 1986). Alumni research has typically been approached from the perspective of individual cases to solicit additional resources (Melchiori, 1988) and not from the overall plan of the institution. Several of

the attitudinal and demographic characteristics in this study have been investigated by other researchers for significance in identifying potential alumni donor support.

Attitudinal Characteristics

Quality of education. Korvas (1984) studied quality of education at Rockhurst College and found a significant relationship between the amount of money alumni donors gave and how they rated the quality of their education. Those alumni who thought they received a good to excellent education tended to give more than those who gave the quality of their education a lower rating.

Demographic Characteristics

A variety of demographic characteristics related to alumni donor behavior have been studied recently. The results of those studies related to variables in this study are included in the following discussion and offer mixed results in terms of their predictability. Connelly and Blanchette (1986) found that "the giving behavior of alumni varies by class year, sex, career occupation, and geographic region" (p. 78). However, not all studies have had similar results.

Age. Several researchers have investigated the relationship of age to alumni donor support. Although it is generally believed that younger alumni do not give financially, "they are among our best volunteers" (Goldberg, 1988, p. 6). Haddad (1986) found that there was a significant relationship between age and the percentage given

for donor support at a private institution. In a study of Indiana volunteerism ("Survey Reveals," 1992), no relationship was found between age and charitable behavior. White (1989) found that "giving generally grows with age" (p. 66).

In public institutions of higher education, Grill (1988) found that there was a highly significant relationship between alumni giving and age. He found that there was a "linear progression with age" associated with alumni giving, indicating that as the alumni aged, their annual gift increased proportionately.

Korvas (1984) found that there was a significant relationship between age and alumni donor support; the older the alumnus, the higher the gift to the institution. Hueston (1989) found a similar relationship between age and alumni donor support at a public institution.

Midlarsky and Hannah (1989) studied donor behavior among the elderly. They found that when "an opportunity to be generous was readily accessible to people of diverse ages, more elderly persons made donations than did younger persons" (p. 350). Grill (1988) found no significant correlation between age and donor support and indicated that this result opposed findings from other studies.

Gender. Gender of alumni and potential for donor support was studied by McNally (1984). In studying alumni donor support, he found that there was a relationship at the .06 level of significance that indicated males gave slightly more than females. Although McNally's study did not indicate a high degree of support for differences between the genders in terms of giving, Haddad (1986)

found that males gave more than females. In the Indiana University study of volunteers ("Survey Results," 1992), no relationship was found between gender and giving. Goldberg (1989) indicated that "women still don't give as much as men to charitable causes, but that's changing" (p. 11).

In a survey by Yankelovich, Skelly, and White (cited in Goldberg, 1989), little difference in giving patterns was found between males and females. Spaeth and Greeley (1970) found that "alumni of state colleges were least likely to contribute (17%)" (p. 115). White (1989) speculated that "some demographic factors are not found to be major determinants of giving, among them sex and occupation" (p. 69).

Korvas (1984) investigated gender and giving as it related to magnitude of giving rather than donors and nondonors. He found that there was a difference in giving by males and females; males showed a higher level of giving than females. Although this difference has been consistent over time, giving at women's colleges is generally higher than giving at co-educational institutions (Goldberg, 1989). "Women played a far less prominent role as donors . . . conscripted into philanthropic service primarily through churches. . . . They often donated energy as well" (McCarthy, 1989, p. 48).

Marital status. There has been little support in the research for a correlation between marital status and alumni donor support (Grill, 1988; Haddad, 1986). Korvas (1984) found, however, that there was a trend (< .05 level of significance) in the number of

divorced and widowed alumni who gave more to their alma maters. The Indiana University study ("Survey Reveals," 1992) indicated that people were "more likely to be givers" if they were married (p. 18).

Year of graduation. The level of donor support has been shown to increase with the number of years since graduation. Korvas (1984) and Haddad (1986) found significant differences in the amount of donor support as the number of years since graduation increased. This pattern of support has a correlation with age. Grill (1988) found a high degree of significance when studying year of graduation and alumni donor support.

Receipt of financial aid. Little significance has been shown in studies linking receipt of financial aid with alumni donor support. Haddad (1986) studied institutional financial aid receipt and found no significance. Korvas (1984) found some significance in that those who thought they had received sufficient financial aid were better donors to the institution.

Participation in organizations. Private institutions have had mixed findings in attempting to link student participation in organizations with alumni donor support. Korvas (1984) found no significance, whereas Haddad (1986) found some significance in extracurricular activities.

McNally (1984) found that special-interest groups such as ROTC, student government leaders, and residence hall residents were more likely to give to the institution. Grill (1988) found no significant difference between participation in organizations and alumni donor support but thought that there could be "differences between

private and public institutions and between predominantly male and female alumni populations" (p. 82). Miller and Casebeer (1990) found that there was a stronger relationship between donor support and satisfaction with education received than between donor support and extracurricular involvement (p. 7).

Educational loan debt. Studies relevant to health care education have been conducted to determine loan debt. The "high level of student debt can have an effect on the ability of a graduate to provide financial support to the institution" (Martini, 1991, p. 998). Park (1990) indicated that the average debt for graduating medical students increased 26.5% or "more than twice the 12.1% inflation in the Consumer Price Index [during] that time" (p. 485).

Grill (1988) found no statistically significant relationship between loan debt (nonrepayable) and donor behavior. However, a significant relationship has been found between choice of career mode and loan debt (Johnson et al., 1989).

Income. A high level of significance has been found in studies of alumni donor giving and income. Korvas (1984) found a significant increase in the percentage of alumni donor support when income levels increased. Grill (1988) found a similarly high level of significance. As income levels increased, the level of giving increased.

White (1989) found that "giving is not [always] correlated directly with income" (p. 66). In many cases, it is the lower-income household that gives the highest percentage of its income (p.

65). "More than one-half of all Americans give less than 1% of their income to charities" (White, 1989, p. 65).

Skupa (1983) found that "because most young alumni are not able to make significant financial contributions to the university, they instead give their time, effort, and enthusiasm" (p. 19). In the Indiana University study ("Survey Reveals," 1992), "a strong relationship was found between income and volunteering" (p. 17).

Church membership. In the Indiana University study ("Survey Reveals," 1992), it was found that members of a religious organization were "more likely to be givers" than were nonmembers (p. 18).

Participation in alumni association. Several researchers have found a significant relationship between participation in alumni association events and the level of giving. Grill (1988) and Haddad (1986) both found that when alumni were members of their alumni association, there was greater alumni donor support. Korvas (1984) found that, as participation in alumni association activities increased, so did the level of giving. McNally (1984), however, found no significant relationship between alumni association participation and alumni donor support.

Summary

It is apparent that the motives for alumni donor behavior are intricate and ever-changing. Researchers have found that individuals are more likely to give when the economy is poor and the economic needs of the institution are made known. Tax reform has

had little effect on giving, except for those who lost deductions through non-itemization. Strong feelings of loyalty based on public image and perceptions of quality further motivate positive behavior. Although giving patterns are "largely predictable from theory, the motives of private individuals have a clearly human dimension as well" (Leslie & Ramey, 1988, p. 131).

CHAPTER III

METHODOLOGY

The researcher's purpose in this study was to identify charitable giving practices as related to optometry alumni donor giving. The identification of demographic and behavioral characteristics as related to donor giving is considered a descriptive study (McMillan & Schumacher, 1984).

The methodology used in the study is presented in this chapter. The population and sample are discussed, and the instrument-development and data-collection procedures are explained. Data entry and analysis are presented, along with a discussion of the statistical-analysis procedures that were used for each research question/hypothesis.

Population and Sample

The population consisted of all graduates of the Ferris State University College of Optometry (Big Rapids, Michigan) and the Indiana University School of Optometry (Bloomington, Indiana) receiving the Doctor of Optometry (O.D.) degree from 1979 through 1989. A random sample of the population was selected to generate a mailing list that was manageable in terms of cost and time and that provided the necessary sample size for the research design.

The random sample of each university's graduate optometry population was selected using the "Table for Determining Sample Size for Research Activities" (Issac & Michael, 1981, p. 193). The table yielded a sample size of 190 for Ferris State University and 250 for Indiana University (n = 440), based on population totals of 379 and 790, respectively (N = 1,165). The selected sample size provided a .05 level of confidence for the population proportion of each institution (Issac & Michael, 1981, p. 193).

A table of random numbers was used to select the sample from alumni lists provided by the Ferris State University College of Optometry and the Indiana University School of Optometry.

Instrumentation

Survey Development

A survey instrument was developed, guided by the research questions and hypotheses, to gather data relative to the purpose of the study. The survey questionnaire method was chosen because it is considered the most convenient and acceptable way to gather demographic and attitudinal data (McMillan & Schumacher, 1984). According to Issac and Michael (1990), "[Surveys] are a means of gathering information that describes the nature and extent of a specified set of data ranging from physical counts and frequencies to attitudes and opinions" (p. 128).

Following the questionnaire development, selected optometry faculty reviewed the instrument for content, bias, ambiguity, and ease of completion. The questionnaire was then computer generated

to get the maximum amount of information onto a page (Boser, 1990, p. 157). The 8-1/2" x 11" booklet form was chosen for ease in data entry and to increase initial response rates (Boser, 1990, pp. 157-158).

The questionnaires were color coded by school to aid in data entry and follow-up mailings. Ferris State University questionnaires were printed on buff-colored paper, and Indiana University questionnaires were printed on white paper. The questionnaire was designed to be self-administered, requiring approximately ten minutes to complete.

Content Validity

According to Issac and Michael (1990), "content validity is demonstrated by showing how well the content of the test samples the subject matter about which conclusions are to be drawn" (p. 121). The survey instrument in this study was modeled after instruments previously used and tested in surveying alumni of various optometry schools. The instrument was reviewed by optometry faculty for bias and content before conducting a pilot study.

Previously conducted studies provided survey methods in the development of content-area questions. McManman, Tyler, and Lakin (1987) studied Ferris State University optometry alumni for "attitudes towards their mode of practice, income, year of graduation, gender and location" (p. 7). A study of "Career Choice and Quality of Education," conducted by Keller, Stahl, and Lakin (1990), provided follow-up data for the mode of practice and income of Ferris State University optometry graduates.

In related studies of the demographic characteristics of optometry alumni, Mackin, Egan, and Garzia (1990) studied graduates of the University of Missouri-St. Louis optometry school for mode of practice and demographic area of practice. The University of Houston College of Optometry alumni survey (Kegel-Flom, 1988) focused on graduates' demographic characteristics of mode of practice, practice location, gender, age, marital status, and income (p. 602).

Pilot Study

A pilot study of the survey instrument (see Appendix A) was conducted before administration of the actual survey. The pilot study was conducted with the class of 1990 from the Ferris Sate University College of Optometry. The purpose of the pilot study was to refine the survey instrument, making certain that the respondents understood the instructions and the questions. The pilot study allowed the researcher to test the research questions and hypotheses before conducting the actual survey.

Each respondent in the pilot study was asked to provide comments regarding question structure, ambiguity, bias, and content. Responses provided information regarding format and questions. The format of the survey instrument was refined to provide additional space for responding to open-ended questions, to promote ease in completion, and to give a more pleasing appearance.

Data Collection

Each respondent in the sample received a packet containing a questionnaire with cover letter (Appendix B), a return-addressed, prepaid envelope, a prepaid return post card (Appendix C), and an appropriate alumni decal (Appendix D). The cover letter, occupying the first page of the questionnaire, was signed by the Dean of each school and explained the purpose of the study and its significance to the College.

A return-addressed, prepaid envelope was provided to encourage prompt return of the questionnaire. The prepaid post card was used to aid in follow-up studies of the first mailing. An appropriate alumni decal was included as a thank-you and an incentive to complete and return the survey.

Respondents were asked to complete the survey and return it in the envelope provided. Each respondent was asked to return the post card (with the respondent's name and address) separately upon completion of the questionnaire to confirm the respondent's cooperation in the survey research. The separate return of the post card ensured the anonymity of the respondents. Respondents were able to update addresses and to indicate whether they wanted a copy of the results of the study when it was completed.

A second mailing of the questionnaire and cover letter (Appendix E), return envelope, and post card was sent to nonrespondents approximately three weeks after the first survey was mailed. After the second mailing, there was no further follow-up.

Data Entry and Analysis

The survey results were entered into a word-processing program, and the data were uploaded to the mainframe computer at Ferris State University. The data for each research question were analyzed using the Statistical Package for the Social Sciences (SPSS-X) program for statistical analysis.

Four statistical treatments were used in analyzing the data. McMillan and Schumacher (1984) defined analysis of variance (ANOVA) as a test of "differences between all possible pairs of means in two or more groups" (p. 257). The Pearson product-moment correlation coefficient is used "to show linear relationships between two variables" (p. 430). The Spearman rho is used "when ranks are available on each of two variables for all subjects" (p. 431). Issac and Michael (1990) said the biserial correlation is used in instances of an artificial dichotomy and is "commonly used in item analysis" (p. 168).

Statistical Analysis

The following statistics were used to analyze the independent variables as they related to each of eight dependent variables (typical annual gift):

Research Question 1: **What attitudes toward optometry are related to alumni donor support?** (Ho 1.1-1.4). Responses to survey questions 3 and 11 were analyzed using the Pearson product-moment correlation coefficient for continuous variables in rating quality of optometric education and importance of financial support to

others. Responses to survey questions 4 and 7 (recommendation of optometry as a career and enjoyment of optometric college experiences) were analyzed using the biserial correlation for an artificial dichotomy.

Research Question 2: **What demographic characteristics are related to alumni donor support?** (Ho 2.1-2.9). Responses to survey questions 1 and 19 were analyzed using Spearman rho to rank the place of graduation and population range of the practice site. Responses to survey question 22 were analyzed using the Pearson product-moment correlation coefficient for continuous variables (age). Responses to survey questions 2, 14, 16, 20, and 21 (pre-optometry education, receipt of financial aid, actively practicing optometry, gender, and marital status) were analyzed using the biserial correlation for an artificial dichotomy. ANOVA was used to analyze responses to question 23 (state where practice is located).

Research Question 3: **Is there a relationship between student participation in organizations and alumni donor support?** Responses to survey question 6 (student participation in organizations) were analyzed using the biserial correlation.

Research Question 4: **Is there a relationship between the individual's educational loan debt and alumni donor support?** Responses to survey question 15 (educational loan debt) were analyzed using the Pearson product-moment correlation coefficient.

Research Question 5: **Is there a relationship between mode of practice selected and alumni donor support?** Responses to survey

question 18 (current mode of employment) were analyzed using the Spearman rho ranking.

Research Question 6: **Is there a relationship between income level and alumni donor support?** Responses to survey question 17 (range of income) were analyzed using the Pearson product-moment correlation coefficient.

Research Question 7: **Is there a relationship between volunteer altruism and alumni donor support?** Responses to survey question 5 (recruiting) were analyzed using the Spearman rho ranking. Responses to survey questions 9 and 10 (current organization membership and participation in organizations) were analyzed using the biserial correlation.

Qualitative Analysis

In survey questions 8 and 13, respondents were given the opportunity to provide additional information regarding selected attitudes. Question 8 concerned why they enjoyed or did not enjoy their optometric college experience. Question 13 pertained to why respondents did or did not provide financial support to any of the organizations listed as dependent variables.

Summary

A self-administered questionnaire was developed to investigate alumni donor behavior as it relates to selected behavioral and demographic characteristics. Seven research questions and 20 hypotheses were developed to investigate eight dependent variables (the typical annual gift).

A random sample of alumni was drawn from lists of Ferris State University College of Optometry and Indiana University School of Optometry graduates from the years 1979 through 1989. The survey was conducted in late spring 1992, and each graduate was asked to respond anonymously to the survey. Responses were received and coded during the following summer, uploaded to the mainframe computer at Ferris State University, and analyzed using the SPSS-X program, Release 4. Statistical treatments of the research questions and hypotheses included Pearson product-moment correlation coefficient, the biserial correlation coefficient, Spearman rho, and ANOVA. Two open-ended questions provided qualitative data. Results of the data analyses are reported in Chapter IV.

CHAPTER IV

RESEARCH FINDINGS

The researcher's purpose in this study was to identify charitable giving practices as related to optometry alumni donor giving. Seven research questions and 20 hypotheses were developed to investigate optometry alumni donor giving as it related to selected behavioral and demographic characteristics. A survey instrument was developed to gather data on donor behavior. The sample included alumni from the Ferris State University College of Optometry and the Indiana University School of Optometry.

The information collected through survey responses included attitudes toward optometric education and the profession and demographic information about each respondent. The dependent variables were the self-reported annual gifts given to each of eight organizations. Two open-ended questions provided respondents with additional opportunities to respond to the survey.

In this chapter, a discussion of the survey administration, responses to the dependent and independent variables as organized under each research question and hypothesis, and qualitative findings are presented. The chapter concludes with a summary of the findings.

Survey Administration

The survey instrument was mailed to a randomly chosen sample of Ferris State University and Indiana University optometry alumni from the years 1979 through 1989.

One hundred ninety surveys were mailed to Ferris State University optometry alumni. Following the initial mailing and return of the post card responses, a follow-up letter and survey were sent to 105 nonrespondents. Five surveys were returned as undeliverable.

In all, 106 responses (55.7%) were received from Ferris State University alumni. Four survey instruments were received after the deadline of June 1, 1992, and were not included in the analysis.

Two hundred fifty surveys were mailed to Indiana University optometry alumni. Following the initial mailing and return of the post card responses, a follow-up letter and survey were sent to 154 nonrespondents. Seventy-eight surveys were returned as undeliverable.

Eighty (32%) responses were received from Indiana University alumni. Three were received after the deadline of June 8, 1992, and were not included in the analysis.

The alumni records from each optometry school were complete in providing the necessary sample sizes for the study. The records from Indiana University were not adequate for successful mail delivery.

Traditionally, response rates for optometry school alumni surveys have been below 60%, according to Kegel-Flom (1989).

Responses for the Ferris State University sample were 8.7% higher than for a survey completed in 1989. Fisher (1988) suggested that a return of 35% to 50% is acceptable for the initial mailing and one follow-up mailing. A third mailing should be considered if the response is less than 30% (Fisher, 1988). In the present study, an adequate return rate was achieved with the initial mailing and one-follow-up.

Data Entry

The data from the completed survey instruments were entered into a word-processing program. The information was then uploaded to the Ferris State University mainframe computer and statistically analyzed using SPSS-X, Release 4. Each research question was restated as a null hypothesis or hypotheses for testing purposes. The hypotheses were then analyzed using the appropriate statistical treatments described in Chapter III.

Responses Concerning the Dependent Variables

The eight dependent variables in this study were the typical annual gifts to each of the following:

1. Optometry alumni association
2. Undergraduate alumni association
3. Church
4. United Way
5. Health associations/societies (i.e., cancer, lung, etc.)
6. Environment groups

7. The arts (museums, theater, symphony)

8. Other

Respondents were asked to indicate which of the above-mentioned organization(s) they supported financially on an annual basis by indicating their typical annual gift to each one (see Table 1).

Optometry alumni association. The average annual gift to the optometry alumni association was $151.84. Seventy respondents donated $100 or less per year to their optometry alumni associations. Thirty-four respondents gave between $101 and $500, and 80 gave nothing at all.

Undergraduate alumni association. The average annual gift to the undergraduate alumni association was $83.33. Thirty-six respondents donated $100 or less per year to their undergraduate alumni associations. Six respondents gave between $101 and $500, and 144 gave nothing at all.

Church. The average annual gift to churches was $1,659.08. Eleven respondents donated $100 or less per year to their churches. Forty-two gave between $10 and $ 500 per year, 24 gave between $501 and $1,000 per year, 24 gave between $1,001 and $1,500 per year, and 12 gave between $1,501 and $2,000 per year. Seven respondents gave between $2,001 and $3,000 per year, and 22 gave more than $3,000 per year. Forty-four respondents gave nothing at all to churches.

United Way. The average annual gift to the United Way was $155.44. Fifty-one respondents donated $100 or less per year to the United Way. Thirty-four respondents gave between $101 and $500 per

Table 1.--Organizations the respondents supported financially and their typical annual gifts to each one.

Gift Recipient	Typical Annual Gift								Average Gift
	$0	$1-$100	$101-$500	$501-$1,000	$1,001 $1,500	$1,501-$2,000	$2,001-$3,000	> $3,000	
Optometry alumni association	80	70	34	1	1	--	--	--	$ 151.84
Undergraduate alumni association	144	36	6	--	--	--	--	--	$ 83.33
Church	44	11	42	24	24	12	7	22	$1,659.08
United Way	100	51	34	1	--	--	--	--	$ 155.44
Health associations	67	94	23	1	1	--	--	--	$ 135.97
Environment groups	119	57	9	--	1	--	--	--	$ 111.72
The arts	129	42	14	1	--	--	--	--	$ 144.91
Other	120	16	28	9	7	3	1	2	$ 705.70

year, and one gave between $501 and $1,000 per year. One hundred respondents gave nothing at all to the United Way.

Health associations/societies. The average annual gift to health associations/societies was $135.97. Ninety-four respondents donated $100 or less per year to health associations and societies dealing with cancer, lungs, heart, and so on. Twenty-three respondents gave between $101 and $500, one gave between $501 and $1,000, and one gave between $1,001 and $1,500 per year. Sixty-seven respondents gave nothing at all to such organizations.

Environment groups. The average annual gift to environment groups was $111.72. Fifty-seven respondents donated $100 or less per year to environment groups, nine gave between $101 and $500, and one gave between $501 and $1,000. One hundred nineteen respondents gave nothing at all to environment groups.

The arts. The average annual gift to the arts was $144.91. Forty-two respondents donated $100 or less annually to the arts (museums, theater, and symphony). Fourteen gave between $101 and $500 per year, and one gave between $501 and $1,000 per year. One hundred twenty-nine respondents gave nothing at all to the arts.

Other. The average annual gift to other organizations was $705.70. Sixteen respondents donated $100 or less to organizations other than those listed on the survey questionnaire. Twenty-eight gave between $101 and $500 per year, nine gave between $501 and $1,000, seven gave between $1,001 and $1,500, three gave between $1,501 and $2,000, one gave between $2,001 and $3,000, and two gave more than $3,000 per year to other organizations. One hundred

twenty respondents donated nothing at all to other organizations. (Organizations not listed as a dependent variable but receiving donor support from respondents are listed in Appendix F.)

Seventeen respondents gave nothing at all to any of the organizations listed as dependent variables (see Table 2). Nine nondonors were from Ferris State University, and eight were from Indiana University. One hundred sixty-nine respondents gave to at least one of the organizations listed as a dependent variable.

Table 2.--Donors and nondonors, by school.

University	Donors	Nondonors	Total
Ferris State University	97	9	106
Indiana University	72	8	80
Total	169	17	186

Findings Pertaining to the Research Questions and Hypotheses

The presentation of findings for the research questions and hypotheses is organized in the following manner:

1. Statement of the research question
2. Responses to the independent variables
3. Results of hypothesis testing
4. Summary

In each summary, the dependent variables are discussed as they are grouped under "higher education" or "others." Higher education

included optometry and undergraduate alumni associations as gift recipients; others included all other gift recipients.

A survey instrument was developed to gather data relative to the research questions posed in the study. Survey questions were developed to elicit information on selected independent variables, which included respondents' attitudes toward optometry, demographic characteristics, optometric college experience, educational loan debt, mode of practice selected, income level, and selected altruistic behaviors. Each research question was restated as a null hypothesis for purposes of statistical analysis.

Research Question 1

What attitudes toward optometry are related to alumni donor support?

Attitudes toward optometry were defined as (a) quality of optometric education, (b) recommendation of optometry as a career, (c) optometric college experience, and (d) importance of financial support to others.

Responses to the independent variables. Responses to the independent variables for Research Question 1 are discussed in the following paragraphs.

Quality of optometric education. In survey question 3, respondents were asked to indicate their attitude toward the quality of their optometric education. One hundred eighty-five alumni responded. Ten (5%) of the respondents had neutral feelings about the quality of their optometric education. Ninety-five (51%) thought that their optometric education was good, and 80 (43%)

thought that it was very good (Table 3). There was one (.5%) missing response.

Table 3.--Respondents' attitudes toward the quality of their optometric education.

Quality of Optometric Education	Frequency	Percent
Very good	80	43
Good	95	51
Neutral	10	5
Poor	--	--
Very poor	--	--
Total	185	99

Recommendation of optometry as a career. In survey question 4, respondents were asked whether they recommended optometry as a career. One hundred eighty alumni responded. Of that number, 161 (89.4%) indicated that they do recommend optometry as a career, whereas 19 (10.6%) indicated that they do not (Table 4). There were six (3%) missing responses.

Table 4.--Respondents' recommendation of optometry as a career.

Recommendation of Optometry as a Career	Frequency	Percent
Recommend	161	89
Do not recommend	19	11
Total	180	100

Optometric college experience. In survey question 7, respondents were asked whether they had enjoyed their optometric college experience. One hundred eighty-one alumni responded to this question. Of that number, 176 (97%) indicated that they had enjoyed their optometric college experience; five (3%) said that they had not enjoyed their optometric college experience (Table 5). There were five (3%) missing responses.

Table 5.--Respondents' enjoyment of their optometric college experience.

Enjoyment of Optometric College Experience	Frequency	Percent
Enjoyed	176	97
Did not enjoy	5	3
Total	181	100

Importance of financial support to others. In survey question 11, respondents were asked to rate how important it was for them to give financial support to others. Three categories were surveyed: church, community, and profession (Table 6).

Table 6.--Importance to respondents of financial support to church, community, and profession.

Importance	Church		Community		Profession	
	Freq.	%	Freq.	%	Freq.	%
Very important	78	42	22	12	26	14
Important	45	24	90	49	95	52
Somewhat important	28	15	61	33	50	27
Not important	34	18	12	6	12	6
Total	185	99	185	100	183	99

There were 185 responses regarding financial support to the church. Seventy-eight (42%) of the respondents indicated that it was very important to support the church financially. Forty-five (24%) indicated that it was important, 28 (15%) said it was somewhat important, and 34 (18%) said that it was not important to support the church financially. There was one (.5%) missing response.

There were 185 responses regarding financial support to the community. Twenty-two (12%) respondents indicated that it was very important to support the community financially. Ninety (49%) indicated that it was important, 61 (33%) said it was somewhat important, and 12 (6%) said it was not important to support the community financially. There was one (.5%) missing response.

There were 183 responses regarding financial support to the profession. Twenty-six (14%) respondents indicated that it was very important to support the profession financially. Ninety-five (52%) said it was important, 50 (27%) indicated it was somewhat important,

and 12 (7%) said it was not important to support the profession financially. There were three (2%) missing responses.

Hypothesis testing for Research Question 1. Research Question 1 was restated as four null hypotheses, which were then tested to determine whether respondents' attitudes were related to their donor behavior. The results are discussed in the following paragraphs.

Quality of optometric education. The Pearson product-moment correlation coefficient was used to analyze the relationship between respondents' attitudes toward the quality of their optometric education and their self-reported typical annual gift. Hypothesis 1.1 stated:

> Ho 1.1: There is no relationship between respondents' attitudes toward the quality of their optometric education and their alumni donor support.

A significant negative relationship at the .05 level was found when respondents' attitudes toward the quality of their optometric education were correlated with gifts to the arts (-.1493) (see Table 7). Alumni who had a neutral attitude toward the quality of their optometric education (n = 10) gave an average of $200 to the arts (Table 8). Those who thought that their optometric education was good gave an average of $32, whereas those who thought that their education was very good gave an average of $40. The mean gift was $44. The null hypothesis was rejected.

Table 7.--Relationships between respondents' attitudes and donor support: higher education and other gifts.

Gift Recipient	Quality of Optometric Education	Recommend Optometry as a Career	Optometry College Experience	Importance of Financial Support to Others		
				Church	Community	Profession
Higher Education						
Optometry alumni association	.1224	.1429	.0619	.0264	.1164	.2068**
Undergrad. alumni association	.0629	.0410	.0324	.1804*	.3225**	.3336**
Other						
Church	.1166	.0310	.0332	.4773**	.1006	.0778
United Way	.0577	.0771	.0014	.0670	.1697*	.0976
Health assoc.	.0726	.0861	.1240	-.0583	.1629*	-.0084
Environ. groups	-.0478	.0620	.1097	-.1728*	.0862	-.0488
The arts	-.1493*	.0102	.3090**	-.1383	.1457*	-.0620
Other	-.0496	.0457	.0458	.0473	.1341	-.0390

*Significant at the .05 level. **Significant at the .01 level.

Table 8.--Dollar donations to the arts according to respondents' attitudes toward the quality of their optometric education.

Quality of Optometric Education	Average Gift to the Arts
Neutral (n=10)	$200*
Good (n=95)	$ 32*
Very good (n=80)	$ 40*

*Significant at the .05 level.

Recommendation of optometry as a career. No significant relationship was found when attitude toward recommendation of optometry as a career was correlated with each type of gift. Thus, the null hypothesis was not rejected.

Optometric college experience. The biserial correlation was used to analyze respondents' attitudes toward their optometric college experience and their self-reported typical annual gift (Table 7). Hypothesis 1.3 stated:

> Ho 1.3: There is no relationship between whether respondents enjoyed their optometric college experience and their alumni donor support.

A significant relationship at the .01 level was found when respondents' attitudes toward their optometric college experience were correlated with gifts to the arts (.3090). Those alumni who did not enjoy their optometric college experience (n = 5) gave an average of $250 to the arts (Table 9). Those who did enjoy their optometric college experience (n = 176) gave an average of $37. The mean gift was $42. The null hypothesis was rejected.

Table 9.--Dollar donations to the arts according to respondents' attitudes toward their optometric college experience.

Enjoyment of Optometric College Experience	Average Gift to the Arts
Did not enjoy (n=5)	$250*
Ebjoyed (n=176)	$ 37*

*Significant at the .01 level.

Importance of financial support to others (church). The Pearson product-moment correlation coefficient was used to analyze the relationship between respondents' attitudes toward the importance of financial support to others and their self-reported typical annual gift. Hypothesis 1.4 stated:

> Ho 1.4: There is no relationship between how respondents perceive the importance of their financial support to others and their alumni donor support.

A significant negative relationship at the .05 level was found when respondents' attitudes toward the importance of financial support to the church were correlated with gifts to environment groups (-.1728). Those alumni who thought that financial support to the church was not important (n = 34) gave an average of $83 to environment groups, whereas those who thought that support to the church was important (n = 45) or very important (n = 78) gave an average of $26 (Table 10). The mean gift was $40.

A significant positive relationship at the .05 level was found what respondents' attitudes toward the importance of financial

support to the church were correlated with gifts to undergraduate alumni associations (.1804). Those alumni who thought that financial support to the church was very important (n = 78) gave an average of $28 to undergraduate alumni associations, whereas those who did not think such support was important (n = 34) gave an average of $6. The mean gift was $18.

A significant positive relationship at the .01 level was found when respondents' attitudes toward the importance of financial support to the church were correlated with gifts to the church (.4773). Those alumni who thought that financial support to the church was very important (n = 78) gave an average of $2,393 per year, whereas those who did not think such support was important (n = 34) gave an average of $59. The mean gift was $1,273.

Importance of financial support to others (community). A significant positive relationship at the .05 level was found when respondents' attitudes toward the importance of financial support to the community were correlated with gifts to the United Way (.1697), gifts to health associations (.1629), and gifts to the arts (.1457). Those alumni who thought that financial support to the community was very important (n = 22) gave average gifts of $92 to the United Way, $122 to health associations/societies, and $70 to the arts (Table 10). Those who did not think financial support to others was important gave average gifts of $25 to the United Way, $3 to health associations/societies, and $4 to the arts. The mean gift was $44.

Table 10.--Significant relationships between dollar donations to higher education and other gifts and the importance of financial support to church, community, and profession.

Significant Variable	Gift Recipient ($)							
	Optometry Alumni Assoc.	Undergrad. Alumni Assoc.	Church	United Way	Health Assoc.	Environ. Groups	The Arts	Other
Church								
Very important		$28*	$2,393**			$26*		
Important		$14*	$852**			$26*		
Not important		$6*	$59**			$83*		
Community								
Very important		$65**		$92*	$122*		$70*	
Not important		$5**		$25*	$3*		$4*	
Profession								
Very important	$122**	$57**						
Not important	$14**	$2**						

*Significant at the .05 level. **Significant at the .01 level.

A significant positive relationship at the .01 level was found when respondents' attitudes toward the importance of financial support to the community was correlated with gifts to undergraduate alumni associations (.3225). Alumni who thought financial support to the community was very important (n = 22) gave an average of $65 per year to their undergraduate alumni association, whereas those who did not think such support was important (n = 12) gave an average of $5. The mean gift was $18.

Importance of financial support to others (profession). A significant positive relationship at the .01 level was found when respondents' attitudes toward the importance of financial support to the profession was correlated with gifts to optometry alumni associations (.2068) and undergraduate alumni associations (.3336). Alumni who thought financial support to the profession was very important (n = 26) gave an average of $122 to their optometry alumni association and an average of $57 to their undergraduate alumni associations. Those who did not think that financial support to the profession was important (n = 12) gave an average of $14 to their optometry alumni association and an average of $2 to their undergraduate alumni association. The mean gifts to these associations were $88 and $17, respectively. The null hypothesis was rejected.

Summary of findings for Research Question 1. The data showed support for relationships at the .05 and .01 levels between respondents' attitudes toward the quality of their optometric education, their optometric college experience, and the importance

of financial support to others and their alumni donor support. No significant relationship was found between respondents' recommendation of optometry as a career and their alumni donor support (see Table 11).

Table 11.--Attitudinal variables that were significantly related to alumni donor support.

Variable	Gift Recipient
Did not enjoy optometry school	The arts
Neutral attitude toward optometry school	The arts
Financial support to:	
Church--Important	Undergrad. alumni assoc. Church
Church--Not important	Environment groups
Community--Very important	Undergrad. alumni assoc. United Way Health associations The arts
Profession--Very important	Optometry alumni assoc. Undergrad. alumni assoc.

Contributions to higher education were significantly related to respondents' belief that financial support to church, community, and the profession was important or very important. Contributions to others was significantly related to enjoyment of optometry school

and respondents' belief that financial support to the church was not important.

Research Question 2

What demographic characteristics are related to alumni donor support?

Demographic characteristics examined in this study were (a) age, (b) gender, (c) marital status, (d) year of graduation, (e) undergraduate school, (f) receipt of financial aid, (g) population of practice area, (h) actively practicing optometry, and (i) state where currently practicing.

Responses to the independent variables.

Age. In survey question 22, respondents were asked to indicate their age. One hundred eighty-six alumni responded to this question. Thirty-four (18%) respondents were between the ages of 25 and 29, 139 (75%) were between 30 and 39, 12 (6%) were between 40 and 49, and 1 (1%) was over 50 years of age (Table 12).

Table 12.--Distribution of respondents by age.

Age of Respondent	Frequency	Percent
25-29 years	34	18
35-39 years	139	75
40-49 years	12	6
> 50 years	1	1
Total	186	100

Gender. In survey question 20, respondents were asked to indicate their gender. One hundred eighty-six alumni responded. Of that number, 143 (77%) were males and 43 (23%) were females (Table 13).

Table 13.--Distribution of respondents by gender.

Gender of Respondent	Frequency	Percent
Male	143	77
Female	43	23
Total	186	100

Marital status. In survey question 21, respondents were asked to indicate their marital status. One hundred eighty-two alumni responded. Of that number, 25 (14%) indicated that they had never been married, and 157 (86%) indicated that they were currently married. No attempt was made to determine whether those currently married had previously been divorced. There were four (2%) missing responses (Table 14).

Table 14.--Distribution of respondents by marital status.

Marital Status of Respondent	Frequency	Percent
Married	157	86
Never married	25	14
Total	182	100

Year of graduation. In survey question 1, respondents were asked to indicate the year of their graduation from optometry school. One hundred eighty-three alumni responded, and there were three missing responses. The distribution of respondents by year of graduation is shown in Table 15.

Table 15.--Distribution of respondents by year of graduation.

Year of Graduation From Optometry School	Frequency	Percent
1979	14	8
1980	13	7
1981	14	8
1982	19	10
1983	17	9
1984	18	10
1985	20	11
1986	19	10
1987	11	6
1988	17	9
1989	21	12
Total	183	100

Site of pre-optometry education. In survey question 2, respondents were asked to indicate whether they received their pre-optometry education at the same school at which they studied optometry or at a different school. One hundred eighty-six alumni responded. Sixty-three (34%) received their pre-optometry education at the optometry college they attended. One hundred twenty-three (66%) received their pre-optometry education at another college or university (Table 16). A list of the colleges and universities that the respondents attended can be found in Appendix G.

Table 16.--Distribution of respondents by site of their pre-optometry education.

Site of Pre-Optometry Education	Frequency	Percent
Optometry school	63	34
Other school	123	66
Total	186	100

Receipt of financial aid. In survey question 14, respondents were asked to indicate whether they had received financial aid while in optometry school. Choices included Pell Grants, other grants, gifts, scholarships, and other. Thirty-two (20%) alumni responded that they received Pell Grants, and 19 (13%) received grants other than the Pell Grant. Ten (6%) received gifts, 45 (27%) received scholarships, and 76 (56%) received some other form of financial aid while in optometry school (Table 17).

Table 17.--Distribution of respondents by financial aid received while in optometry school.

Type of Financial Aid	Frequency	Percent
Pell Grant	32	18
Grants, other	19	10
Gifts	10	5
Scholarships	45	25
Other	76	42
Total	182	100

Population of practice area. In survey question 19, respondents were asked to indicate the population of the area in which they practiced optometry. One hundred eighty-four alumni responded. Eighty-six (47%) of the respondents practiced in areas with populations less than 50,000, and 31 (17%) practiced in areas with populations between 50,000 and 99,999. Thirty-two (17%) practiced in areas with populations between 100,000 and 499,999, and 35 (19%) practiced in areas with populations over 500,000. There were two (1%) missing responses (Table 18).

Table 18.--Distribution of respondents by population of practice area.

Population of Practice Area	Frequency	Percent
< 50,000	86	47
50,000- 99,999	31	17
100,000-499,999	32	17
> 500,000	35	19
Total	184	100

Actively practicing optometry in 1992. In survey question 16, respondents were asked to indicate whether or not they were actively practicing optometry in 1992. One hundred eighty-six alumni responded. Of that number, 184 (99%) said they were currently practicing optometry; only two (1%) indicated that they were not currently practicing optometry.

State in which currently practicing. In survey question 23, respondents were asked to indicate the state in which they were currently practicing optometry. One hundred eighty-five alumni responded. Eighty-one (44%) of the respondents indicated that they were currently practicing optometry in Michigan, and 28 (15%) were currently practicing in Indiana. Seventy-six (41%) of the respondents were practicing in other states (Table 19). A list of all states where alumni are currently practicing can be found in Appendix H.

Table 19.--Distribution of respondents by states in which they were currently practicing optometry.

State Where Currently Practicing	Frequency	Percent
Michigan	81	44
Indiana	28	15
Other	76	41
Total	185	100

Hypothesis testing for Research Question 2. Research Question 2 was restated as nine null hypotheses, which were then tested to determine whether there was a relationship between donor giving and demographic characteristics of the optometry alumni who participated in the study. The results are discussed in the following paragraphs.

Age. The Pearson product-moment correlation coefficient was used to analyze the relationship between respondents' age and their self-reported typical annual gift. Hypothesis 2.1 stated:

> Ho 2.1: There is no relationship between respondents' age and their alumni donor support.

Two of eight variables were significant at the .01 level (Table 20). A significant positive relationship was found when respondents' age was correlated with gifts to optometric alumni associations (.1935) and with gifts to the church (.3097). Alumni between the ages of 25 and 29 gave an average of $36 to optometric alumni associations, whereas those between 30 and 39 gave an average of $96 (Table 21). Alumni between the ages of 40 and 49 gave an average of $210. One respondent, age 55, gave $50 to the optometric alumni association. The mean gift for all respondents to optometric alumni associations was $86.

Alumni between the ages of 25 and 29 gave an average of $411 to the church, whereas those between 30 and 39 gave an average of $1,327. Alumni between the ages of 40 and 49 gave an average of $1,206, and one respondent, age 55, gave $15,000 to the church. The mean gift for all respondents to the church was $1,266. The null hypothesis of no significant relationship between age and donor support was rejected.

Table 20.--Relationship between demographic characteristics and donor support: higher education and other gifts.

Gift Recipient	Demographic Characteristics									
	Age	Gender	Marital Status	Year of Grad.	Undergrad. School	Receipt of Finan. Aid: Grants Other Than Pell	Pop. of Practice Area	Active Practice	State Where Currently Practicing	
									F-Ratio	F-Prob.
Higher Education										
Optometry alumni association	.1935**	0.0062	.1481*	-.2204	.0748	.0421	-.0612	-.0076	1.1641	.3249
Undergrad. alumni association	.1009	-.1387	-.0149	-.0955	.0973	.3410**	-.1594	-.0133	2.1259	.0985
Other Gifts										
Church	.3097**	-.0722	.1557*	-.2353	.0847	.0442	-.0246	-.0142	.6773	.5670
United Way	.1408	.0011	.1791*	-.2476	.0820	-.0387	-.1874	-.0489	.7510	.5231
Health assoc.	.0223	.0546	.1349	-.1074	.1084	.0045	-.0084	-.0329	1.9596	.1217
Environ. groups	.0735	-.1002	-.0162	.0075	.0714	-.0005	.0099	-.0356	.3614	.7810
The arts	-.0232	-.0306	.0843	-.0878	.0407	-.0216	.0052	-.0397	2.1745	.0926
Other	.0923	-.0743	.0736	-.0862	-.0723	-.0294	-.0610	-.0344	1.8121	.1466

*Significant at the .05 level. **Significant at the .01 level.

Table 21.--Significant relationships between dollar donations to higher education and other gifts and age, marital status, and receipt of financial aid--other grants.

Significant Variable	Gift Recipient ($)			
	Optometry Alumni Assoc.	Undergrad. Alumni Assoc.	Church	United Way
Age				
25-29	$36**		$411**	
30-39	$96**		$1,327**	
40-49	$210**		$1,206**	
> 50	$50**		$15,000**	
Marital Status				
Single	$28*		$516*	$12*
Married	$93*		$1,407*	$81*
Receipt of Financial Aid--Other Grants				
Yes		$63**		
No		$14**		

*Significant at the .05 level. **Significant at the .01 level.

Gender. No significant relationship was found when respondents' gender was correlated with each gift (Table 20). Thus, the null hypothesis was not rejected.

Marital status. The biserial correlation was used to analyze the relationship between respondents' marital status and their self-reported typical annual gift. Hypothesis 2.3 stated:

> Ho 2.3: There is no relationship between respondents' marital status and their alumni donor support.

Three of eight variables were found to be significant at the .05 level (Table 20). A significant positive relationship was found when respondents' marital status was correlated with their gifts to optometry alumni associations (.1481), church (.1557), and the United Way (.1791). Those alumni who never married gave an average of $28 to optometry alumni associations, whereas those who were married gave an average of $93 (Table 21). The mean gift to optometry alumni associations was $84. Alumni who never married gave an average of $516 to the church, whereas those who were married gave an average of $1,407 to the church. The mean gift to the church was $1,285. Those alumni who never married gave an average of $12 to the United Way, and those who were married gave an average of $81. The mean gift to the United Way was $72. The null hypothesis was rejected.

Year of graduation. No significant relationship was found when respondents' year of graduation was correlated with each gift (Table 20). Thus, the null hypothesis was not rejected.

Undergraduate school. No significant relationship was found when respondents' undergraduate school was correlated with each gift (Table 20). Thus, the null hypothesis was not rejected.

Receipt of financial aid. The biserial correlation was used to analyze the relationship between respondents' receipt of financial aid and their self-reported typical annual gift. Hypothesis 2.6 stated:

> Ho 2.6: There is no relationship between respondents' receipt of financial aid and their alumni donor support.

A significant positive relationship at the .01 level was found when respondents' receipt of other grants was correlated with undergraduate alumni gifts (.3410). Alumni who had received grants other than the Pell Grant gave an average of $63 to their undergraduate alumni association (Table 21). Those who had not received other grants gave an average of $14. The mean gift was $20. The null hypothesis was rejected.

Population of practice area. No significant relationship was found when the population of respondents' practice area was correlated with each gift (Table 20). Thus, the null hypothesis was not rejected.

Actively practicing optometry. Since only two respondents were not actively practicing optometry, no significant relationship was found when respondents' active practice of optometry was correlated with each gift (Table 20). Thus, the null hypothesis was not rejected.

State where currently practicing. No significant relationship was found when investigating the relationship between the state where respondents were currently practicing and their typical annual gift to each listed recipient. Thus, the null hypothesis was not rejected.

Summary of findings for Research Question 2. The data showed support for relationships at the .05 and .01 levels between alumni donor support and the selected personal characteristics of age, marital status, and receipt of financial aid (see Table 22). The data did not indicate support for a relationship between donor

support and the personal characteristics of gender, year of graduation, undergraduate school attended, population of practice area, actively practicing optometry, or the state where respondents were currently practicing optometry.

Table 22.--Demographic variables that were significantly related to alumni donor support.

Variable	Gift Recipient
Age	
30-39	Optometric alumni assoc. Church
40-49	Optometric alumni assoc.
> 50	Church
Marital Status	
Married	Optometric alumni assoc. Undergrad. alumni assoc. Church United Way
Single	Church
Receipt of Financial Aid	
Received grants (other than Pell)	Optometric alumni assoc. Undergrad. alumni assoc.

Contributions to higher education showed significance with regard to support of the optometric alumni association when age of the respondent was 30-39 or 40-49. There was significance for

support of the undergraduate and optometric alumni associations when respondents were married or had received grants other than the Pell Grant.

Contributions to others showed significance with regard to support of the church when respondents were 30-39, over 50, married, or never married. A significant relationship was also found when married respondents were giving to the United Way.

Research Question 3

Is there a relationship between student participation in organizations and alumni donor support?

Student participation in organizations included such groups as the American Optometric Student Association, student government, and professional and student fraternities in which an optometry student might participate while in optometry school.

Responses to the independent variables. In survey question 6, respondents were asked to indicate whether they had participated in any organizations while in optometry school. One hundred sixty-three (91%) respondents indicated that they had been involved with the American Optometric Student Association (AOSA) (Table 23). Forty-seven (36%) alumni had been involved with Student Volunteer Optometric Services to Humanity (SVOSH), another 47 (36%) had participated in an optometric fraternity, 33 (25%) had been involved in student government, 11 (10%) had participated in a service fraternity, and 24 (42%) had participated in some other organization during optometry school.

Table 23.--Organizations in which respondents participated while in optometry school.

Organization	Frequency	Percent
AOSA (n=163)	163	91
SVOSH (n=47)	47	36
Optometry fraternity (n=47)	47	36
Student government (n=33)	33	25
Service fraternity (n=11)	11	10
Other (n=24)	24	42

Hypothesis testing for Research Question 3. Research Question 3 was restated as a null hypothesis, which was then tested to determine whether there was a relationship between respondents' participation in organizations during optometry school and their alumni donor support. Hypothesis 3 stated:

> Ho 3: There is no relationship between respondents' participation in organizations during optometry school and their alumni donor support.

The biserial correlation coefficient was used to analyze the relationship between respondents' participation in organizations and their self-reported typical annual gift. As shown in Table 24, a significant positive relationship at the .01 level was found when respondents' participation in service fraternities was correlated with their gifts to undergraduate alumni associations (.2554).

Table 24.--Relationship between student participation in organizations and donor support: higher education and other gifts.

Gift Recipient	Student Organization					
	AOSA	SVOSH	Student Gov't	Optom. Frat.	Service Frat.	Other
Higher Education						
Optometric alumni association	.1030	.1409	.1159	.0778	.0019	-.0654
Undergrad. alumni association	.1168	.0954	.0993	-.0589	.2554*	.2588
Other Gifts						
Church	.0336	-.0130	-.0971	-.0843	.0111	-.2016
United Way	.0423	-.0599	.1197	.0375	-.0695	.2374
Health assoc.	.0446	-.0574	.0664	.0354	-.0945	.1029
Environ. groups	-.1251	.0352	-.0616	-.1285	-.0784	.1282
The arts	-.0763	-.0093	.0273	-.0904	-.0181	.1241
Other	.0139	-.0510	-.0448	-.1267	-.0072	.1884

*Significant at the .01 level.

Alumni who indicated that they did not participate in service fraternities gave an average of $15 to undergraduate alumni associations (Table 25). Those who did participate gave an average of $57. The mean gift was $19. The null hypothesis was rejected.

Table 25.--Significant relationships between dollar donations to undergraduate alumni associations and participation in service fraternities.

Significant Variable	Gift Recipient ($)
	Undergraduate Alumni Associations
Participation in Service Fraternity	
Participated	$57*
Did not participate	$15*

*Significant at the .01 level.

Summary of findings for Research Question 3. The data showed support for a relationship between respondents' participation in organizations during optometry school and their alumni donor support (Table 26). Contributions to higher education showed significance for those alumni who had participated in a service fraternity during optometry school and gifts to the undergraduate alumni association. No significant relationship was found when exploring student participation in organizations and other gift recipients.

Table 26.--Organization-participation variable that was significantly related to alumni donor support.

Variable	Gift Recipient
Participation in service fraternity	Undergrad. alumni assoc.

Research Question 4

Is there a relationship between the individual's educational loan debt and alumni donor support?

Responses to the independent variable. In survey question 15, respondents were asked to indicate their postgraduate educational loan debt for optometry school. One hundred eighty-two alumni responded. Of that number, 51 (28%) had an educational loan debt between $0 and $9,999 following optometry school (Table 27). Of the remaining respondents, 48 (26%) had loan debts between $10,000 and $19,999, 41 (23%) had loan debts between $20,000 and $29,999, 28 (15%) had loan debts between $30,000 and $39,999, and 14 (8%) had loan debts over $40,000. There were 4 (2%) missing responses.

Table 27.--Respondents' educational loan debt for optometry school.

Loan Debt	Frequency	Percent
$0-$ 9,999	51	28
$10,000-$19,999	48	26
$20,000-$29,999	41	23
$30,000-$39,999	28	15
$40,000+	14	8
Total	182	100

Hypothesis testing for Research Question 4. Research Question 4 was restated as a null hypothesis, which was then tested to determine whether there was a relationship between respondents'

educational loan debt and their alumni donor support. Hypothesis 4 stated:

> Ho 4: There is no relationship between respondents' educational loan debt and their alumni donor support.

The Pearson product-moment correlation coefficient was used to analyze the relationship between respondents' educational loan debt and their self-reported typical annual gift. As shown in Table 28, a significant negative relationship at the .05 level was found when educational loan debt was correlated with gifts to the United Way (-1668). Alumni with an educational loan debt between zero and $9,999 gave an average of $88 to the United Way, whereas those with a loan debt between $30,000 and $39,999 gave an average of $28 (Table 29). The mean gift to the United Way was $73. A significant negative relationship at the .01 level was found when educational loan debt was correlated with gifts to optometry alumni associations (-.2240). Alumni with an educational loan debt between zero and $9,999 gave an average of $126, whereas those with a loan debt of more than $40,000 gave an average of $6. The mean gift to optometry alumni associations was $87. The null hypothesis was rejected.

Table 28.--Relationship between educational loan debt and donor support: higher education and other gifts.

Gift Recipient	Educational Loan Debt
Higher Education	
Optometry alumni associations	-.2240**
Undergrad. alumni associations	-.0520
Other Gifts	
Church	.0128
United Way	-.1668*
Health associations	.1291
Environment groups	.0753
The arts	.1003
Other	-.0538

*Significant at the .05 level. **Significant at the .01 level.

Table 29.--Significant relationships between dollar donations to higher education and other gifts and educational loan debt.

Significant Variable	Gift Recipient ($)	
	Optometry Alumni Association	United Way
Educational Loan Debt		
$0- $9,999	$126**	$88*
$30,000-$39,999	$35**	$28*
> $40,000	$6**	

Summary of findings for Research Question 4. The data showed support for a relationship between respondents' educational loan

debt and their alumni donor support (Table 30). Contributions to higher education showed significance when educational loan debt was less than $10,000 for gifts to optometric alumni associations. Contributions to others showed significance when educational loan debt was less than $10,000 for gifts to the United Way.

Table 30.--Educational-loan-debt variable that was significantly related to alumni donor support.

Variable	Gift Recipient
Educational Loan Debt	
Loan debt less than $10,000	Optometry alumni assoc. United Way

Research Question 5

Is there a relationship between mode of practice selected and alumni donor support?

Responses to the independent variables. In survey question 18, respondents were asked to indicate the mode of practice in which they were currently employed. Choices included private practice, optometric group practice, multidisciplinary practice, commercial practice, research, education, professional associations, and other business pursuits. The distribution of respondents according to mode of practice is shown in Table 31.

Table 31.--Distribution of respondents by current mode of practice.

Practice Setting	Full Time		Part Time	
	Freq.	Percent	Freq.	Percent
Private practice (n=109)	87	80	22	20
Group practice (n=33)	27	82	6	18
Multidisciplinary practice (n=29)	22	76	7	24
Commercial practice (n=38)	20	53	18	47
Educational setting (n=19)	5	26	14	74
Research setting (n=1)	1	100	0	0
Professional association (n=2)	1	50	1	50
Other business (n=13)	3	23	10	77

Eighty-seven (47%) alumni responded that they were employed in a private practice setting full time, and 22 (12%) were employed part time in a private practice setting. Twenty-seven (15%) alumni were employed in an optometric group practice setting, and 6 (3%) were employed part time in a group practice setting. Twenty-two (12%) alumni responded that they were employed in a multidisciplinary practice setting full time, and 7 (4%) were employed part time in this type of setting.

Twenty (11%) alumni were employed in a commercial practice setting full time, and 18 (10%) were employed part time in such a setting. Five (3%) alumni were employed in an educational setting full time, and 14 (8%) were employed part time in an educational setting. One (.5%) alumnus was employed in a research setting full time; none was employed part time in a research setting.

One (.5%) alumnus was employed full time by a professional association, and 1 (.5%) was employed part time by a professional association. Three (2%) alumni responded that they were employed in other business pursuits full time, and 10 (5%) were employed part time in other business pursuits.

Hypothesis testing for Research Question 5. Research Question 5 was restated as a null hypothesis, which was then tested to determine whether there was a relationship between respondents' mode of practice and their alumni donor support. No significant relationship was found when mode of practice was correlated with each gift (Table 32). Thus, the null hypothesis was not rejected.

Summary of findings for Research Question 5. The data did not show support for a relationship between mode of practice selected and alumni donor support. No significant relationship was found between respondents' mode of optometry practice and the amount of their gifts to higher education or other recipients.

Research Question 6

Is there a relationship between income level and alumni donor support?

Responses to the independent variables. In survey question 17, respondents were asked to provide their annual optometric income level. One hundred eighty-five (99%) alumni responded. Six (3%) individuals indicated that they earned less than $20,000 (Table 33), 30 (16%) earned between $20,000 and $39,999, 53 (29%) earned between $40,000 and $59,999, 58 (31%) earned between $60,000 and $79,999, 23 (12%) earned between $80,000 and $99,999, and 15 (8%) earned more

Table 32. Relationship between mode of practice selected and donor support: higher education and other gifts.

Gift Recipient	Mode of Practice Selected							
	1	2	3	4	5	6	7	8
Higher Education								
Optometry alumni associations	-.0633	.1114	-.0230	.0824	.0143	.1618	.0783	-.1067
Undergrad. alumni associations	-.0453	.0601	-.0189	-.0186	.1048	.0943	-.0557	-.0923
Other Gifts								
Church	.0326	.0694	-.1005	-.0171	.0649	-.0351	-.0762	-.0229
United Way	-.0026	.0167	.0486	-.0777	.0186	.1392	-.0147	-.1023
Health assoc.	-.0492	.1200	-.0466	.0563	-.0255	.0899	-.0166	.0795
Environ. groups	-.1272	.1698	-.0335	.1451	-.0535	-.0099	-.0758	.0260
The arts	.0900	.0803	.0046	-.1276	-.0479	.0846	-.0679	.1748
Other	.0158	.0299	-.0061	-.0619	.0440	.0602	.0052	.0033

Key: 1 = Private practice
2 = Group practice
3 = Multidisciplinary practice
4 = Commercial practice
5 = Research setting
6 = Educational setting
7 = Professional association
8 = Other business pursuits

than $100,000 per year in the practice of optometry. There was one (.5%) missing response.

Table 33.--Annual optometric income of the respondents.

Optometric Income	Frequency	Percent
< $20,000	6	3
$20,000-$39,999	30	16
$40,000-$59,999	53	29
$60,000-$79,999	58	31
$80,000-$99,999	23	12
> $100,000	15	8
Total	185	99

Hypothesis testing for Research Question 6. Research Question 6 was restated as a null hypothesis, which was then tested to determine whether there was a relationship between respondents' income level and their alumni donor support. Hypothesis 6 stated:

> Ho 6: There is no relationship between respondents' income level and their alumni donor support.

The Pearson product-moment correlation coefficient was used to analyze the relationship between respondents' income level and their self-reported typical annual gift. Three of eight variables were significant at the .05 level (Table 34). A significant positive relationship was found when respondents' income level was correlated with gifts to the United Way (.1673), gifts to the arts (.1693), and gifts to other recipients (.1713).

Table 34.--Relationship between respondents' income level and donor support: higher education and other gifts.

Gift Recipient	Income Level
Higher Education	
Optometry alumni associations	.2519**
Undergraduate alumni associations	.0794
Other Gifts	
Church	.1992**
United Way	.1673*
Health associations	.2041**
Environment groups	.0930
The arts	.1693*
Other	.1713*

*Significant at the .05 level. **Significant at the .01 level.

Alumni with incomes over $80,000 (n = 39) gave an average of $120 to the United Way, whereas those with incomes under $80,000 (n = 147) gave an average of $50 (Table 35). The mean gift to the United Way was $72. Alumni with incomes over $80,000 gave an average of $86 to the arts, whereas those earning under $80,000 gave an average of $30. The mean gift to the arts was $45. Alumni with incomes over $80,000 gave an average of $511 to other recipients, whereas those earning under $80,000 gave an average of $198. The mean gift to other recipients was $252.

Three of eight variables were significant at the .01 level. A significant positive relationship was found when income level was

Table 35.--Significant relationships between dollar donations to higher education and other gifts and income level.

Significant Variable	Gift Recipient ($)							
	Optometry Alumni Assoc.	Undergrad. Alumni Assoc.	Church	United Way	Health Assoc.	Environ. Groups	The Arts	Other
Income								
< $80,000	$55**		$891**	$50*	$60**		$30*	$198*
> $80,000	$157**		$2,325**	$120*	$162**		$86*	$511*

*Significant at the .05 level. **Significant at the .01 level.

correlated with gifts to optometry alumni associations (.2519), church (.1992), and health associations (.2041) (see Table 34).

Alumni with incomes over $80,000 gave an average of $157 to their optometry alumni associations, whereas those earning less than $80,000 annually gave an average of $55 (see Table 35). The mean gift to optometry alumni associations was $86. Alumni with incomes over $80,000 gave an average of $2,325 to the church, whereas those earning less than $80,000 gave an average of $891. The mean gift to the church was $1,246. Alumni with incomes over $80,000 gave an average of $162 to health associations, and those earning less than $80,000 gave an average of $60. The mean gift to health associations was $87. The null hypothesis was rejected.

Summary of findings for Research Question 6. The data showed support for relationships at the .05 and .01 levels between income level and alumni donor support (Table 36). Contributions to higher education showed significance for gifts to optometry alumni associations when alumni reported incomes over $80,000 per year. Contributions to others showed significance for gifts to the church, the United Way, health associations, the arts, and others when alumni reported incomes over $80,000 per year.

Table 36.--Income-level variable that was significantly related to alumni donor support.

Variable	Gift Recipient
Income	
Income > $80,000 annually	Optometry alumni assoc. Church United Way Health associations The arts Others

Research Question 7

Is there a relationship between volunteer altruism and alumni donor support?

For purposes of this study, volunteer altruism was defined as (a) current memberships in organizations, (b) participation in organizations, and (c) recruiting students for optometry school.

Responses to the independent variables. Responses to the independent variables for Research Question 7 are discussed in the following paragraphs.

Current memberships. In survey question 9, respondents were asked to indicate their current membership in organizations. Choices included the American Optometric Association (AOA), AOA section membership, state optometric association, university alumni association, optometry alumni association, Volunteer Optometric Services to Humanity (VOSH), community service organizations, and other. The respondents' current organization memberships are shown in Table 37.

Table 37.--Respondents' current membership in selected organizations.

Organization	Yes		No	
	Freq.	Percent	Freq.	Percent
American Optometric Association	158	87	23	13
State optometric association	135	82	30	18
AOA section	50	52	46	48
Undergrad. alumni association	65	47	74	53
Optometry alumni association	74	54	64	46
VOSH	32	26	93	74
Community service	86	64	49	36
Other	50	66	26	34

One hundred fifty-eight (87%) alumni responded that they were members of the American Optometric Association. Twenty-three (13%) of the respondents were not members. There were five (3%) missing responses.

One hundred thirty-five (82%) alumni said they were members of their state optometric association. Thirty (18%) were not members. There were 21 (11%) missing responses.

Fifty (52%) alumni responded that they were members of one of the American Optometric Association's sections. Forty-six (48%) indicated they did not belong to a section. There were 90 (41%) missing responses.

Sixty-five (47%) alumni responded that they were members of their university alumni association. Seventy-four (53%) indicated that they were not members. There were 47 (25%) missing responses.

Seventy-four (54%) alumni responded that they were members of their optometry alumni association. Sixty-four (46%) said they were not members. There were 48 (26%) missing responses.

Thirty-two (26%) respondents indicated they were currently members of Volunteer Optometric Services to Humanity (VOSH). Ninety-three (74%) said they were not members. There were 61 (33%) missing responses.

Eighty-six (64%) alumni responded that they were currently members of community service organizations. Forty-nine (36%) said they were not members. There were 51 (27%) missing responses.

Fifty (66%) alumni said they were currently members of other community groups. Twenty-six (34%) indicated they were not members of such groups. There were 110 (59%) missing responses.

Participation in organizations. In survey question 10, respondents were asked to indicate their annual participation in organizations. Choices included church activities, alumni activities, professional activities (local, state, national), community activities, and other. Responses are shown in Table 38.

One hundred thirty-seven (80%) respondents indicated that they did participate in church activities, whereas 35 (20%) indicated that they did not participate. There were 14 (8%) missing responses.

Table 38.--Respondents' participation in organizations.

Organization	Yes		No	
	Freq.	Percent	Freq.	Percent
Church activities	137	80	35	20
Alumni activities	38	26	106	74
Professional activities				
Local	139	81	33	19
State	117	71	47	29
National	46	32	97	68
Community activities	95	63	56	37
Other	16	33	33	67

Thirty-eight (26%) alumni indicated that they participated in alumni activities. On the other hand, 106 (74%) said they did not participate. There were 42 (23%) missing responses.

One hundred thirty-nine (75%) respondents indicated that they participated in local professional activities. Thirty-three (18%) said they did not participate in such activities. There were 14 (8%) missing responses.

One hundred seventeen (71%) respondents indicated that they participated in state-level professional activities, whereas 47 (29%) said they did not participate. There were 22 (12%) missing responses.

Forty-six (32%) respondents said that they participated in national-level professional activities; 97 (68%) did not participate. There were 43 (23%) missing responses.

Ninety-five (63%) alumni indicated that they participated in community activities. Fifty-six (37%) said they did not participate in such activities. There were 35 (19%) missing responses.

Sixteen alumni (33%) indicated that they participated in other activities than those listed in question 10. Thirty-three (67%) said that they did not participate in other activities. There were 137 (74%) missing responses.

Student recruitment. In survey question 5, respondents were asked to indicate the number of students they had recruited for their optometry school. One hundred seventy-three alumni responded. Five (3%) indicated that they had recruited five or more students for their optometry school (see Table 39). Twenty (12%) had recruited three or four students, 130 (75%) had recruited one or two students, and 18 (10%) had recruited no students. There were 13 (7%) missing responses.

Table 39.--Number of students respondents had recruited for their optometry school.

Number of Students Recruited	Frequency	Percent
0	18	10
1-2	130	75
3-4	20	12
5 or more	5	3
Total	173	100

Hypothesis testing for Research Question 7. Research Question 7 was restated as three null hypotheses, which were then tested to determine whether respondents' altruistic behavior was related to alumni donor support.

Current organization membership. The biserial correlation was used to analyze the relationship between respondents' current organization membership and their self-reported typical annual gift. Hypothesis 7.1 stated:

> Ho 7.1: There is no relationship between respondents' current membership in organizations and their alumni donor support.

Two of eight variables were significant at the .05 level (Table 40). A significant negative relationship was found when membership in the undergraduate alumni association was correlated with gifts to environment groups (-.1763). Alumni who were members of their undergraduate alumni association gave an average of $19 to environment groups, whereas those who were not members gave an average of $64 (Table 41). The mean gift to environment groups was $43.

A significant positive relationship was found when membership in undergraduate alumni associations was correlated with gifts to others (.1809) (Table 40). Alumni who were members of their undergraduate alumni association gave an average of $361 to others, whereas those who were not members gave an average of $134 (Table 41). The mean gift to others was $240.

Table 40.--Relationship between altruistic behavior (current organization membership, participation in organizations, and recruiting of students) and donor support: higher education and other gifts.

Gift Recipient	Current Organization Membership		Participation in Organizations				Recruiting of Students
	Undergrad. Alumni Assoc.	Optometry Alumni Assoc.	Alumni	Other Groups	Church	Profes-sional	
Higher Educ.							
Optometry alumni assoc.	.1546	.2838**	.1746*	-.0336	.0835	.1443	.2257
Undergrad. alumni assoc.	.2555**	.1609	.3067**	.2459	.0882	.0123	.0848
Other Gifts							
Church	.0547	.0004	-.0384	-.1238	.3251**	.0717	.0106
United Way	.0729	-.0285	.1331	.3864**	.0501	.0732	.1435
Health Assoc.	.1559	.0581	.0999	.3305*	.0039	.0201	.1667
Environ. groups	-.1763*	-.2341**	-.1192	.3306*	-.2286**	-.2613**	.1503
The arts	.0756	-.0738	-.0252	.3548*	-.1312	-.1063	.0288
Other	.1809*	.0323	.1205	.2181	.0939	.0860	.1241

*Significant at the .05 level. **Significant at the .01 level.

Table 41.--Significant relationships between dollar donations to higher education and other gifts and altruistic behavior.

Significant Variable	Gift Recipient ($)							
	Optometry Alumni Assoc.	Undergrad. Alumni Assoc.	Church	United Way	Health Assoc.	Environ. Groups	The Arts	Other
Memberships:								
Undergrad. alumni assoc.								
Nonmember		$8**				$64*		$134*
Member		$33**				$19*		$361*
Optometry alumni assoc.								
Nonmember	$47**					$82*		
Member	$139**					$19*		
Participation:								
Alumni act.								
Yes	$136*	$39**						
No	$72*	$8**						
Church								
Yes			$1,692**			$28**		
No			$76**			$97**		
Profession								
Yes						$26*		
No						$107*		
Other groups								
Yes				$163**	$186*	$93*	$147*	
No				$28**	$60*	$20*	$17*	

*Significant at the .05 level. **Significant at the .01 level.

Three of eight variables were significant at the .01 level. A significant positive relationship was found when membership in undergraduate alumni associations was correlated with gifts to undergraduate alumni associations (.2555) (Table 40). Alumni who were members of their undergraduate alumni association gave an average gift of $33 to their undergraduate alumni association, whereas those who were not members gave an average of $8 (Table 41). The mean gift was $20.

A significant positive relationship was found when membership in optometry alumni associations was correlated with gifts to optometry alumni associations (.2838) (Table 40). Alumni who were members of their optometry alumni association gave an average of $139 to their optometry alumni association; those who were not members gave an average of $47 (Table 41). The mean gift was $96.

There was a significant negative relationship when membership in optometry alumni associations was correlated with gifts to environment groups (-.2341) (Table 40). Alumni who were members of their optometry alumni association gave an average gift of $19 to environment groups, whereas those alumni who were not members of their optometry alumni association gave an average of $82 (Table 41). The mean gift was $48. The null hypothesis was rejected.

Participation in organizations. The Pearson product-moment correlation coefficient was used to analyze the relationship between respondents' participation in organizations and their self-reported typical annual gift. Hypothesis 7.2 stated:

Ho 7.2: There is no relationship between respondents' current participation in organizations and their alumni donor support.

Four of eight variables were significant at the .05 level (Table 40). A significant positive relationship was found when participation in alumni activities was correlated with gifts to optometry alumni associations (.1746). The mean gift was $89, with active alumni giving an average of $136 and nonactive alumni giving an average of $72 (Table 41).

A significant positive relationship was also found for participation in other groups and gifts to health associations (.3305), environment groups (.3306), and the arts (.3548) (Table 40). Alumni who were active in other groups gave an average of $186 to health associations, whereas those who were not active gave an average of $60 (Table 41). The mean gift was $100. Alumni who were active in other groups gave an average of $93 to environment groups; those who were not active gave an average of $20. The mean gift was $44. Alumni who were active in other groups gave an average of $147 to the arts, whereas those who were not active gave an average of $17. The mean gift to the arts was $60.

Five of eight variables were significant at the .01 level. A significant positive relationship was found when respondents' participation in church organizations was correlated with gifts to church (.3251) (Table 40). Alumni who participated in church organizations gave an average of $1,692 to the church, whereas those alumni who did not participate gave an average of $76. The mean gift was $1,363.

A significant positive relationship was found for participation in alumni activities and gifts to undergraduate alumni associations (.3067) (Table 40). Alumni who participated in alumni activities gave an average of $39 to their undergraduate alumni association, whereas those who did not participate gave an average of $8 (Table 41). The mean gift was $16.

A significant positive relationship also was found for participation in other groups and gifts to the United Way (.3864) (Table 40). Alumni who participated in other groups gave an average of $163 to the United Way, whereas those who did not participate gave an average of $28 (Table 41). The mean gift was $72.

A significant negative relationship was found when participation in church organizations was correlated with gifts to environment groups (-.2286) (Table 40). Alumni who participated in church organizations gave an average of $28, whereas those who did not participate gave an average of $97 (Table 41). The mean gift was $42.

A significant negative relationship also was found when participation in professional activities was correlated with gifts to environment groups (-.2613) (Table 40). Alumni who participated in professional activities gave an average of $26 to environment groups, whereas those who did not participate gave an average of $107 (Table 41). The mean gift was $42. The null hypothesis was rejected.

Recruiting of students for optometry school. No significant relationship was found when recruiting of students was correlated with each gift. Thus, the null hypothesis was not rejected.

Summary of findings for Research Question 7. The data showed support for a relationship between alumni donor support and current organization membership and participation in organizations. The data did not show support for a relationship between alumni donor support and recruiting of students for optometry school (Table 42).

Contributions to higher education showed significance for gifts to optometry alumni associations when alumni were members of their undergraduate and/or optometry alumni associations and when they participated in alumni activities.

Contributions to others showed significance for gifts to the United Way, health associations, environment groups, and the arts when alumni participated in other activities. There was significance for gifts to the church when alumni participated in church activities. Significance was further indicated when alumni did not participate in church, professional activities, or undergraduate alumni associations when correlated with gifts to environment groups.

Table 42.--Altruistic-behavior variables that were significantly related to alumni donor support.

Variable	Gift Recipient
Membership in:	
Undergraduate alumni association	Optometry alumni assoc. Undergrad. alumni assoc.
Optometry alumni association	Optometry alumni assoc.
Participation in:	
Alumni activities	Optometry alumni assoc.
Church activities	Church
Other groups	United Way Health associations Environment groups The arts
No participation in:	
Church activities	Environment groups
Professional activities	Environment groups

Qualitative Findings

Two open-ended questions were included in the survey to elicit additional responses regarding attitudes and donor behavior. In survey question 8, respondents were asked to provide additional information regarding whether or not they had enjoyed their optometric college experience. In survey question 13, respondents were asked to provide additional information regarding their donor

behavior. Responses from each school were nearly equal (Ferris = 74%, Indiana = 75%).

Question 8: Why did you enjoy or not enjoy your optometric college experience?

Respondents cited faculty, instruction, and peer relationships as influencing their enjoyment of optometry school. Responses from Ferris State University alumni were overwhelmingly in support of quality faculty and instruction (51%). Alumni thought that the faculty had been "approachable" and "caring" (Appendix I, #9) and had provided "ample attention during labs and clinics" (#30).

Fewer than five respondents cited poor instruction in clinical training. One respondent did not enjoy "instructors partying so closely with students" (#16).

The small class size at Ferris was cited by 32 respondents as a positive factor in providing a better student/faculty ratio and increasing faculty availability. However, one respondent did not enjoy the "same 32 people all four years [in class]" (#69).

Responses from Indiana University alumni were 47% in support of their perception of peer-relationship development during optometry school. These respondents thought that "lasting friendships [had been] established" (#5) and that the opportunity had existed to build relationships with "future colleagues" (#36).

Indiana University respondents were split in their support of faculty. Ten indicated that instruction and faculty support had been enjoyable, whereas 11 indicated that instruction had been inadequate, several classes had been "useless" (Appendix J, #13),

and "clinical experience was poor" (#8). Respondents also noted that they had not enjoyed "capricious professional arrogance" (#2), "lazy professors" (#52), and "irrelevant and outdated courses and coursework" (#52).

Ferris and Indiana respondents were similar in their perception of business courses and preparation for the "real world" (#7). Each group cited the inadequacy of practice management in the curriculum and the number of "irrelevant" (#52) courses necessary to complete the degree as contributing to their not enjoying optometry school.

Question 13: If you do not financially support any of the organizations listed above, why do you not provide support?

Respondents cited loans and income level as having the most influence on whether or not they provided financial support to an organization. Respondents from Ferris cited loan obligations (school or practice), the receipt of financial aid, and whether or not they had been asked to donate as reasons for not providing financial support to an organization. Two respondents were fervent about the lack of financial support for their college expenses. In both cases, they thought they had been overlooked in the receipt of monetary awards. "Those who received such awards should be willing to donate" (Appendix I, #11) and "I don't support because when I needed financial help none was provided" (#13), they wrote.

Indiana respondents overwhelmingly cited loan obligations as the primary reason for not providing financial support to an organization. Loans were primarily for school tuition and practice purchases.

Ferris and Indiana respondents were equal (24%) in their perception of income influencing their donor behavior. "Limited budget" (Appendix J, #2), "lack of sufficient income" (#30), and "only so much money" (#20) were cited as major factors contributing to their decision not to provide financial support to organizations.

Summary of Findings

Survey Administration

One hundred six alumni from the Ferris State University College of Optometry and 80 alumni from the Indiana University School of Optometry responded to a survey investigating behavioral and demographic characteristics as they relate to donor giving. The graduates matriculated between 1979 and 1989.

Responses to the Dependent Variables

Eight dependent variables were used to analyze the behavioral and demographic characteristics of optometry alumni and their donor behavior. The average annual gift for each variable ranged from a low of $83.33 (undergraduate alumni associations) to a high of $1,659.08 (church). Each dependent variable was analyzed for significance of its relationship with the independent variables. Significant findings were compared with average donor amounts for each category.

Responses to the Independent Variables

Data were collected relative to the research questions and hypotheses. Research Question 1 had four hypotheses. Hypotheses 1.1, 1.3, and 1.4 were rejected because the data analysis supported

a relationship between the selected attitudes and alumni donor support. Hypothesis 1.2 was not rejected because the data did not support a relationship between recommendation of optometry as a career and alumni donor support.

Research Question 2 had nine hypotheses. Hypotheses 2.1, 2.3, and 2.6 were rejected because the data analysis supported relationships between age, marital status, or receipt of financial aid and alumni donor support. Hypotheses 2.2, 2.4, 2.5, 2.7, 2.8, and 2.9 were not rejected because the data did not support a relationship between gender, year of graduation, undergraduate school attended, population of practice area, actively practicing optometry, or state where practicing optometry and alumni donor support.

Research Question 3 had one hypothesis. Hypothesis 3 was rejected because the data analysis supported a relationship between student participation in organizations and alumni donor support.

Research Question 4 had one hypothesis. Hypothesis 4 was rejected because the data analysis supported a relationship between educational loan debt and alumni donor support.

Research Question 5 had one hypothesis. Hypothesis 5 was not rejected because there was no support for a relationship between mode of practice selected and alumni donor support.

Research Question 6 had one hypothesis. Hypothesis 6 was rejected because the data analysis supported a relationship between income level and alumni donor support.

Research Question 7 had three hypotheses. Hypotheses 7.1 and 7.2 were rejected because the data analysis supported relationships between membership in organizations and participation in organizations and alumni donor support. Hypothesis 7.3 was not rejected because there was no support for a relationship between number of students recruited for optometry school and alumni donor support.

Qualitative Findings

The researcher selected certain qualitative responses to illustrate characteristics of alumni donor behavior and enjoyment of their optometric college experience. In general, respondents thought that faculty, instruction, and peer relationships had had a major influence on whether or not they enjoyed optometry school. Overall, alumni responding to the open-ended question concerning donor support of organizations thought that their inability to provide donor support to particular organizations was a result of loan obligations and income level.

CHAPTER V

SUMMARY, MAJOR FINDINGS, CONCLUSIONS, RECOMMENDATIONS, AND REFLECTIONS

This chapter contains a summary of the study and a discussion of the major findings. Conclusions drawn from the findings and a profile of donor characteristics are presented. Recommendations are offered, as are reflections pertaining to the study.

Summary

The researcher's purpose in this study was to identify charitable giving practices as related to optometry alumni donor giving. Changes in the financing of higher education in the United States have created greater demands on institutions to secure funding from outside sources. A review of the literature revealed that alumni are a growing source of income for colleges and universities, yet few studies have been done to link selected behavioral and demographic characteristics with donor giving. No studies have been done with regard to optometry alumni and their donor behavior.

Seven research questions guided this study. Twenty hypotheses were formulated to investigate the relationship of selected behavioral and demographic characteristics of optometry alumni to

their donor behavior. A random sample was taken of those optometrists who graduated from the Ferris State University College of Optometry and the Indiana University School of Optometry from 1979 through 1989. A survey was sent to the sample; 106 (55.7%) responses were received from Ferris State graduates, and 80 (32%) responses were received from Indiana graduates. The overall response rate was 44%.

Survey data were analyzed using the SPSS-X program on the mainframe computer at Ferris State University. Four statistical treatments were used in analyzing the data. They were the Pearson product-moment correlation coefficient, the biserial correlation coefficient, the Spearman rho correlation coefficient, and ANOVA.

Eight dependent variables were used in analyzing the data. Respondents indicated their typical annual gift to optometry alumni associations, undergraduate alumni associations, church, the United Way, health associations, environment groups, the arts, and others.

Eleven of the 20 null hypotheses were rejected for significance at the .05 or .01 level. In the remaining nine hypotheses, no relationships were found between self-reported donor giving and the recommendation of optometry as a career, gender, year of graduation, undergraduate school attended, population of practice area, whether respondents were actively practicing optometry, state where currently practicing, mode of practice selected, or recruiting of students for optometry.

Review of the Major Findings

Research Question 1. Four hypotheses were formulated to investigate the relationship between respndents' attitudes toward optometry and alumni donor support. Alumni who did not enjoy optometry school, who had neutral attitudes about the quality of their optometric education, and who placed importance on financial support for the community gave larger donations to the arts.

Alumni who thought that financial support for the church was important gave larger donations to the church and to undergraduate alumni associations. However, those who thought support for the church was not important gave more to environment groups.

Alumni who indicated that support for their community was very important gave larger donations to their optometry alumni association, undergraduate alumni association, the United Way, health associations, and the arts. Alumni who indicated that support for their profession was very important gave larger donations to their optometry and undergraduate alumni associations.

Research Question 2. Nine hypotheses were formulated to investigate the relationship of selected demographic characteristics to alumni donor support. Three hypotheses were rejected. Respondents' age, marital status, and receipt of grants other than Pell Grants were significantly related to typical annual gifts. Younger alumni gave less to the optometry alumni association than did older alumni. Married alumni gave more to their optometry alumni association, church, and the United Way than did their single peers. Alumni who received grants other than Pell Grants gave more

to their undergraduate alumni association than did those who received other financial aid.

Research Question 3. This hypothesis concerned the relationship between student participation in organizations and alumni donor support. The hypothesis was rejected. Alumni who participated in service fraternities as students gave larger donations to their undergraduate alumni associations than those who did not participate.

Research Question 4. This hypothesis concerned the relationship between respondents' educational loan debt and their alumni donor support. The hypothesis was rejected. Alumni who reported a high level of postgraduate loan debt gave less to the United Way and to their optometry alumni association than did those who had lower loan debt.

Research Question 5. This hypothesis concerned the relationship between mode of practice selected and alumni donor support. The hypothesis was not rejected. No relationship was found between the mode of practice respondents selected and their alumni donor support.

Research Question 6. This hypothesis concerned the relationship between respondents' income and their alumni donor support. The hypothesis was rejected. Alumni with incomes over $80,000 gave more to their optometry alumni association, the church, the United Way, health associations, the arts, and others than did their colleagues reporting incomes less than $80,000.

Research Question 7. Three hypotheses were formulated to investigate the relationship between selected types of volunteer altruism and alumni donor support. Hypotheses 7.1 and 7.2 were rejected. Alumni who were members of their undergraduate or optometry alumni associations gave more to environment groups than all others. Members of undergraduate alumni associations gave more to their undergraduate alumni associations and other groups. Members of optometry alumni associations gave more to their associations.

Alumni who participated in alumni activities gave more to their undergraduate and optometry alumni associations. Participation in church correlated positively with giving to the church and correlated negatively with giving to environment groups. Alumni who did not participate in their professional activities gave more to environment groups. Alumni who participated in other groups gave more to the United Way, health associations, environment groups, and the arts.

Hypothesis 7.3 was not rejected. No relationship was found between number of students recruited for optometry school and alumni donor support.

Qualitative findings. Overall, respondents thought that faculty, instruction, and peer relationships had a major influence on whether or not they enjoyed their optometric college experience. Respondents also thought that their inability to provide donor support to certain organizations was a result of loan obligations and income levels.

Conclusions

It is still difficult to predict the donor behavior of graduates of colleges and universities. Consistent with the literature review are findings supporting the fact that recent alumni did not give as much as those alumni who had been practicing optometry for a number of years. There was also little support for the U-shaped curve in giving, i.e., those with higher and lower incomes giving the greatest percentage of income.

The findings of this study indicated that several behavioral and demographic characteristics were inconclusive in determining donor motivation and behavior. Six of the nine nonsignificant attitude and demographic-characteristic variables were specific to the practice of optometry. The remaining three were gender, year of graduation, and undergraduate school for pre-optometry education.

The variables that were significant at the .05 or .01 level indicate that certain behavioral and/or demographic characteristics may be useful in building a profile of optometry alumni donors. This researcher found that, although behaviors and demographic characteristics of optometry alumni have many facets, several characteristics are consistent.

Demographic profile of optometry alumni donors to higher education. Optometry alumni gave a higher-than-average gift to higher education (optometry and undergraduate alumni associations) if they:

* thought that financial support to the church, community, and profession was very important.

* were 40 to 49 years old, married, and had received grants (other than Pell) in optometry school.
* participated in a service fraternity while in optometry school.
* had an educational loan debt under $10,000.
* had an optometric income over $80,000.
* were a member of their optometry or undergraduate alumni association.
* participated in alumni activities.

The study findings support optometry's fit in the overall giving pattern of graduates. With the exception of giving to the church and others, optometry gifts were in line with participants' donations to the undergraduate alumni association, the United Way, health associations, environment groups, and the arts.

Recommendations

Suggestions for Further Research

It is recommended that this study be replicated for the Ferris State University and Indiana University optometry schools at five-year intervals to identify longitudinal changes in alumni behaviors and demographic characteristics as they relate to donor support.

It is recommended that this study be replicated over the broader population of optometry school graduates in order to further refine donor characteristics for optometry schools. The elimination of variables that showed no relationship to alumni donor support should be considered and other variables studied as they relate to optometry alumni donor support.

It is recommended that further research be directed toward why alumni give and why they give the amount they do, to provide further information for building donor support.

It is recommended that this study be replicated over the broader population of optometry schools to investigate the changes in scope of practice as those changes may influence donor support to the optometry school.

It is recommended that a study be conducted to investigate differences in giving at various optometry schools. Specific relationships may exist between donor behavior and the specific school.

Implications for Ferris State University and Indiana University

Each institution's alumni office should develop a profile of incoming students, identifying personal interests. This profile should continue throughout the optometry school career, as well as after graduation from the institution, but should not be used as criteria for admission.

It is apparent that some behavioral and demographic characteristics are related to donor behavior, and the opportunity may exist to nurture or develop these characteristics during optometry school. Optometry schools should plan recruiting drives and activities to increase membership in the optometry alumni associations. Optometry schools also should develop activities, other than continuing education, in which alumni can participate, allowing the development of a strong donor base. Each of the optometry schools in this study should investigate increasing the

number of grants and financial awards available to students. Specific relationships may exist between donor behavior and a specific school.

Reflections

This study of optometry alumni donor support has raised several questions worthy of continued thought and discussion. The increased giving to the arts by those who did not enjoy optometry school or rated their optometric education as neutral may reflect a need to look at creative versus scientific thinking in students. Those who are more creative in their thinking may require a different approach in developing a loyalty to their optometry school.

The question of differences in giving to the church and to environment groups indicated possible differences in the way alumni held spiritual beliefs. Those whose beliefs are held in spirit appear to show different donor behavior than those whose beliefs are held in nature. Investigating how those beliefs differ may help schools align themselves more closely with the factors that influence a high level of donor support to the church.

Finally, the issue of loan debt for optometry students provides an opportunity for schools of optometry to build loyalty by keeping educational loan debt at a manageable level. Strong attitudes appear to be formed when awards and grants are not provided to students who are in need of financial assistance. The grants paid out to alleviate student indebtedness may result in donations that would exceed the initial amount awarded. The reciprocation of

financial support may be a behavior that optometry schools can develop, providing a lifelong financial commitment by alumni.

APPENDICES

APPENDIX A

PILOT STUDY COVER LETTER AND SURVEY

March 12, 1992

Dear FSU Optometry Alumnus:

You have been randomly selected to receive a survey instrument being developed to study Ferris State University optometry alumni donor characteristics. This survey is the basis of research in institutional advancement, and the results will complete a doctorate in Educational Administration at Michigan State University.

Your input is important to the development of the final survey instrument. I ask that you take a few minutes to complete the survey and also provide your thoughts on process, format, wording, comprehension, bias or other items. Your input will be kept confidential in this anonymous study.

Following completion of the survey, please return it in the enclosed pre-addressed, pre-paid envelope. To ensure your anonymity and indicate your participation, please mail the enclosed postcard <u>after</u> you have mailed the completed survey form.

The survey should take approximately fifteen minutes to complete. Your cooperation in this pilot study will enable me to continue research that is necessary for the financing of optometric education in the future.

Thank you for your participation in this pilot study.

Kind regards,

Rachel A. Snyder, M.S.
Associate Professor

A SURVEY OF INSTITUTIONAL SUPPORT OF OPTOMETRY ALUMNI

Your cooperation in completing this questionnaire will provide valuable data for use by optometry schools. Please respond to each item. You indicate your voluntary agreement to participate by completing and returning this questionnaire.

Please mail this completed questionnaire in the enclosed envelope by March 27, 1992. If the envelope is missing, please mail to:

Alumni Survey
206 Pennock Hall
Ferris State University
901 S. State Street
Big Rapids, MI 49307

After you have mailed the questionnaire, please return the postcard so that you will not be contacted for follow-up purposes. DO NOT return the postcard with the questionnaire to ensure anonymity.

Thank you for participating in this Optometry Alumni Survey.

A SURVEY OF INSTITUTIONAL SUPPORT OF OPTOMETRY ALUMNI

1. **What year did you graduate from optometry school?** _____

2. **Where did you receive your pre-optometry education:**

_____

3. **Please rate the quality of your optometry education:**

____ 1. Very good
____ 2. Good
____ 3. Neutral
____ 4. Poor
____ 5. Very poor

4. **Do you recommend optometry as a career?**

____ 1. Yes
____ 2. No

5. **How many students have you recruited for your optometry school?**

____ 1. 1 - 2
____ 2. 3 - 4
____ 3. 5 or more

6. **Please indicate the organization(s) in which you participated while in Optometry school:**

	Yes	No
1. American Optometric Student Association	1	2
2. Student Volunteer Optometric Services/Humanity	1	2
3. Student Government	1	2
4. Optometric Fraternity	1	2
5. Service Fraternity	1	2
6. Other _____	1	2

7. **Did you enjoy your optometric college experience?**

____ 1. Yes
____ 2. No

8. Why did you enjoy or not enjoy your optometric college experience?

_____

_____

_____

_____

_____

9. Please indicate the organization(s) in which you are currently a member:

	Member	Non-Member
1. American Optometric Association	1	2
a. Contact Lens Section	1	2
b. Low Vision Section	1	2
c. Multidisciplinary Section	1	2
d. Paraoptometric Section	1	2
e. Sports Vision Section	1	2
2. State Optometric Association	1	2
3. University Alumni Association	1	2
4. Optometry Alumni Association	1	2
5. Volunteer Optometric Services to Humanity	1	2
6. Community service organization	1	2
a. Lions Club	1	2
b. Rotary Club	1	2
c. Kiwanis	1	2
d. Chamber of Commerce	1	2
e. Other _____	1	2
7. Other _____	1	2

10. Do you participate in the following on an annual basis?

	Yes	No
1. Church activities	1	2
2. Alumni activities	1	2
3. Professional activities	1	2
a. Local	1	2
b. State	1	2
c. National	1	2
4. Community activities	1	2
a. Government	1	2
b. Youth activities	1	2
b.1. Boy/Girl Scouts youth sports	1	2
c. Sports	1	2
c.1. Sport _____	1	2
e. Other _____	1	2
5. Other _____	1	2

(Please go to the next page)

11. **How important is it for you to provide financial support to the following:**

1 = Not Important (NI)
2 = Somewhat Important (SI)
3 = Important (I)
4 = Very Important (VI)

	NI	SI	I	VI
1. Church	1	2	3	4
2. Community	1	2	3	4
3. Profession	1	2	3	4
4. Alma mater	1	2	3	4

12. **Please indicate which organization you support financially on an annual basis by providing your typical annual gift:**

1. Optometry Alumni Association	$ _____
2. Undergraduate Alumni Association	$ _____
3. Church	$ _____
4. United Way	$ _____
5. American Cancer Society	$ _____
6. American Lung Association	$ _____
7. American Heart Association	$ _____
8. March of Dimes	$ _____
9. Muscular Dystrophy	$ _____
10. Environmental Groups	$ _____
11. The Arts (Museums, Theater, Symphony)	$ _____
12. Other _____	$ _____

13. **If you do not financially support any of the organizations listed above, why do you not provide support?**

_____

_____

_____

14. **While you were in Optometry school, did you receive any of the following financial aid?**

	Yes	No
1. Grants - Pell	1	2
2. Grants - Other _____	1	2
3. Gifts	1	2
4. Scholarships	1	2
5. Other _____	1	2

15. **What was your total postgraduate loan debt for Optometry school (to the nearest $100.00)?**

$ _____

16. **Are you actively practicing optometry in 1992?**

____ 1. Yes
____ 2. No

17. **Please indicate the range of your annual income (do not include your spouse's income):**

____ 1. Less than $20,000
____ 2. $20,000 - $39,999
____ 3. $40,000 - $59,999
____ 4. $60,000 - $79,999
____ 5. $80,000 - $99,999
____ 6. Over $100,000

18. **What is your current mode of employment?**

	Full-Time	Part-Time	Not Applicable
1. Private practice	1	2	3
2. Optometric group practice	1	2	3
3. Multidisciplinary practice	1	2	3
4. Commercial practice	1	2	3
5. Research	1	2	3
6. Education	1	2	3
7. Professional associations	1	2	3
8. Other business pursuits	1	2	3

19. **What is the population range for your area of practice?**

____ 1. Less than 50,000
____ 2. 50,000 - 99,999
____ 3. 100,000 - 499,999
____ 4. 500,000 or more

20. **What is your gender?**

____ 1. Male
____ 2. Female

21. **What is your current marital status?**

____ 1. Never married
____ 2. Married
____ 3. Separated
____ 4. Divorced
____ 5. Widowed

22. **What is your age?** _____

23. **In what state do you currently practice?** _____

Please record additional comments on the next page.

Additional Comments:

Thank you for participating in the Optometry Alumni Survey.

Please mail this completed questionnaire in the enclosed envelope by March 27, 1992. If the envelope is missing, please mail to:

Alumni Survey
206 Pennock Hall
Ferris State University
901 S. State Street
Big Rapids, MI 49307

After you have mailed the questionnaire, please return the postcard so that you will not be contacted for follow-up purposes. DO NOT return the postcard with the questionnaire to ensure anonymity.

Thank you for participating in this Optometry Alumni Survey.

APPENDIX B

SURVEY INSTRUMENTS: FERRIS STATE UNIVERSITY AND INDIANA UNIVERSITY

Ferris State University
College of Optometry

April, 1992

Dear Alumnus:

Higher education is facing a decline in state funding for academic programs. A study of optometry alumni and their philanthropic actions is being conducted to provide for enhanced planning of programming for students and alumni. Your name has been selected in a random sample of Ferris State University Optometry Alumni.

You are representative of the exceptional clinical and didactic optometric training available at F.S.U. Your cooperation in completing this survey is vital and should only take ten minutes of your time.

Your responses will be kept confidential and will be used for research purposes only. Complete responses to each question will facilitate the analysis of data. Please return the completed survey in the enclosed postage-paid envelope by May 10, 1992.

After mailing your completed survey, please mail the enclosed prepaid post card. The mailing of the post card is important for follow-up of non-respondents. Please mail the card after you have returned the completed survey. To ensure the anonymity of respondents, DO NOT return the post card with the survey. A follow-up survey will be sent after approximately three weeks to non-respondents.

Please accept in advance our gratitude for your participation in this study. The results will be available in late 1992. If you would like a copy of the results, please indicate your preference on the return post card. Again, our sincere thanks for your participation and best wishes for your continued success.

Kind Regards,

Rachel A. Snyder, M.S.
Associate Professor

Alan L. Lewis, O.D., Ph.D.
Dean

Please mail this completed questionnaire in the enclosed envelope by May 10, 1992. If the envelope is missing, please mail to:

Alumni Survey
206 Pennock Hall
Ferris State University
901 South State Street
Big Rapids, MI 49307

After you have mailed the questionnaire, please return the postcard so that you will not be contacted for follow-up purposes. DO NOT return the postcard with the questionnaire to ensure anonymity.

Thank you for participating in this Optometry Alumni Survey.

A SURVEY OF INSTITUTIONAL SUPPORT OF OPTOMETRY ALUMNI

Your cooperation in completing this questionnaire will provide valuable data for use by optometry schools. Please answer each item completely. You indicate your voluntary agreement to participate by completing and returning this questionnaire.

1. **What year did you graduate from optometry school?** _____

2. **Where did you receive your Pre-optometry education:**

   [ ] 1. Same school as optometry education
   [ ] 2. Other: _____

3. **Please rate the quality of your optometry education:**

   [ ] 1. Very good
   [ ] 2. Good
   [ ] 3. Neutral
   [ ] 4. Poor
   [ ] 5. Very poor

4. **Do you recommend optometry as a career?** [ ] 1. Yes [ ] 2. No

5. **How many students have you recruited for your optometry school?**

   [ ] 1. 1 - 2
   [ ] 2. 3 - 4
   [ ] 3. 5 or more

6. **Please indicate the organization(s) in which you participated while in Optometry school:**

	Yes	No
1. American Optometric Student Association	[ ]	[ ]
2. Student Volunteer Optometric Services/Humanity	[ ]	[ ]
3. Student Government	[ ]	[ ]
4. Optometric Fraternity	[ ]	[ ]
5. Service Fraternity	[ ]	[ ]
6. Other: _____	[ ]	[ ]

7. **Did you enjoy your optometric college experience?** [ ] 1. Yes [ ] 2. No

8. **Why did you enjoy or not enjoy your optometric college experience?**

_____

_____

_____

_____

9. **Please indicate the organization(s) in which you are currently a member:**

		Member	Non-Member
1.	American Optometric Association	[ ]	[ ]
	Section: _____	[ ]	[ ]
2.	State Optometric Association	[ ]	[ ]
3.	University Alumni Association	[ ]	[ ]
4.	Optometry Alumni Association	[ ]	[ ]
5.	Volunteer Optometric Services to Humanity	[ ]	[ ]
6.	Community service organizations (i.e., Lions, Rotary, etc.)	[ ]	[ ]
7.	Other: _____	[ ]	[ ]

10. **Do you participate in the following on an annual basis?**

		Yes	No
1.	Church activities	[ ]	[ ]
2.	Alumni activities	[ ]	[ ]
3.	Professional activities		
	a. Local	[ ]	[ ]
	b. State	[ ]	[ ]
	c. National	[ ]	[ ]
4.	Community activities (i.e., government, youth, etc.)	[ ]	[ ]
5.	Other: _____	[ ]	[ ]

11. **How important is it for you to provide financial support to the following?**

1 = Not Important (NI)
2 = Somewhat Important (SI)
3 = Important (I)
4 = Very Important (VI)

	NI	SI	I	VI
1. Church	1	2	3	4
2. Community	1	2	3	4
3. Profession	1	2	3	4

12. **Please indicate which organization(s) you support financially on an annual basis by providing your typical annual gift:**

1. Optometry Alumni Association	$_____
2. Undergraduate Alumni Association	$_____
3. Church	$_____
4. United Way	$_____
5. Health Associations/Societies (i.e., cancer, lung, heart, etc.)	$_____
6. Environment Groups	$_____
7. The Arts (museums, theater, symphony)	$_____
8. Other: _____	$_____

13. **If you do not financially support any of the organizations listed above, why do you not provide support?**

_____

_____

_____

_____

14. While you were in Optometry school, did you receive any of the following financial aid?

	Yes	No
1. Grants - Pell	[ ]	[ ]
2. Grants - Other: _____	[ ]	[ ]
3. Gifts	[ ]	[ ]
4. Scholarships	[ ]	[ ]
5. Other: _____	[ ]	[ ]

15. **What was your total postgraduate loan debt for Optometry school (to the nearest $100.00)?**

$_____

16. **Are you actively practicing optometry in 1992?** [ ] 1. Yes [ ] 2. No

17. **Please indicate the range of your annual income (do not include your spouse's income):**

[ ] 1. Less than $20,000
[ ] 2. $20,000 - $39,999
[ ] 3. $40,000 - $59,999
[ ] 4. $60,000 - $79,999
[ ] 5. $80,000 - $99,999
[ ] 6. Over $100,000

18. What is your current mode of employment?

	Full-time	Part-time	Not Applicable
1. Private practice	[ ]	[ ]	[ ]
2. Optometric group practice	[ ]	[ ]	[ ]
3. Multidisciplinary practice	[ ]	[ ]	[ ]
4. Commercial practice	[ ]	[ ]	[ ]
5. Research	[ ]	[ ]	[ ]
6. Education	[ ]	[ ]	[ ]
7. Professional associations	[ ]	[ ]	[ ]
8. Other business pursuits	[ ]	[ ]	[ ]

19. **What is the population range for your area of practice?**

[ ] 1. Less than 50,000
[ ] 2. 50,000 - 99,999
[ ] 3. 100,000 - 499,999
[ ] 4. 500,000 or more

20. **What is your gender?** [ ] 1. Male [ ] 2. Female

21. **What is your current marital status?**

[ ] 1. Never married
[ ] 2. Married
[ ] 3. Separated
[ ] 4. Divorced
[ ] 5. Widowed

22. **What is your age?** _____

23. **In what state do you currently practice?** _____

If you have additional comments, please attach. Thank you for your participation.

INDIANA UNIVERSITY

SCHOOL OF OPTOMETRY
800 East Atwater
Bloomington, Indiana 47405
(812) 855-4410

OFFICE OF THE DEAN

April, 1992

Dear Alumnus:

Higher education is facing a decline in state funding for academic programs. A study of optometry alumni and their philanthropic actions is being conducted to provide for enhanced planning of programming for students and alumni. Your name has been selected in a random sample of Indiana University Optometry Alumni.

You are representative of the exceptional clinical and didactic optometric training available at I.U. Your cooperation in completing this survey is vital and should only take ten minutes of your time.

Your responses will be kept confidential and will be used for research purposes only. Complete responses to each question will facilitate the analysis of data. Please return the completed survey in the enclosed postage-paid envelope by May 10, 1992.

After mailing your completed survey, please mail the enclosed prepaid post card. The mailing of the post card is important for follow-up of non-respondents. Please mail the card after you have returned the completed survey. To ensure the anonymity of respondents, DO NOT return the post card with the survey. A follow-up survey will be sent after approximately three weeks to non-respondents.

Please accept in advance our gratitude for your participation in this study. The results will be available in late 1992. If you would like a copy of the results, please indicate your preference on the return post card. Again, our sincere thanks for your participation and best wishes for your continued success.

Kind Regards,

J. W. Bennett

Jack W. Bennett, O.D.
Dean

Please mail this completed questionnaire in the enclosed envelope by May 10, 1992. If the envelope is missing, please mail to:

Jack W. Bennett, O.D., Dean
School of Optometry
Indiana University
800 East Atwater
Bloomington, IN 47405

After you have mailed the questionnaire, please return the postcard so that you will not be contacted for follow-up purposes. DO NOT return the postcard with the questionnaire to ensure anonymity.

Thank you for participating in this Optometry Alumni Survey.

A SURVEY OF INSTITUTIONAL SUPPORT OF OPTOMETRY ALUMNI

Your cooperation in completing this questionnaire will provide valuable data for use by optometry schools. Please answer each item completely. You indicate your voluntary agreement to participate by completing and returning this questionnaire.

1. **What year did you graduate from optometry school?** _____

2. **Where did you receive your Pre-optometry education:**

   [ ] 1. Same school as optometry education
   [ ] 2. Other: _____

3. **Please rate the quality of your optometry education:**

   [ ] 1. Very good
   [ ] 2. Good
   [ ] 3. Neutral
   [ ] 4. Poor
   [ ] 5. Very poor

4. **Do you recommend optometry as a career?** [ ] 1. Yes [ ] 2. No

5. **How many students have you recruited for your optometry school?**

   [ ] 1. 1 - 2
   [ ] 2. 3 - 4
   [ ] 3. 5 or more

6. **Please indicate the organization(s) in which you participated while in Optometry school:**

	Yes	No
1. American Optometric Student Association	[ ]	[ ]
2. Student Volunteer Optometric Services/Humanity	[ ]	[ ]
3. Student Government	[ ]	[ ]
4. Optometric Fraternity	[ ]	[ ]
5. Service Fraternity	[ ]	[ ]
6. Other: _____	[ ]	[ ]

7. **Did you enjoy your optometric college experience?** [ ] 1. Yes [ ] 2. No

8. **Why did you enjoy or not enjoy your optometric college experience?**

_____

_____

_____

_____

9. **Please indicate the organization(s) in which you are currently a member:**

		Member	Non-Member
1.	American Optometric Association	[ ]	[ ]
	Section: _____	[ ]	[ ]
2.	State Optometric Association	[ ]	[ ]
3.	University Alumni Association	[ ]	[ ]
4.	Optometry Alumni Association	[ ]	[ ]
5.	Volunteer Optometric Services to Humanity	[ ]	[ ]
6.	Community service organizations (i.e., Lions, Rotary, etc.)	[ ]	[ ]
7.	Other: _____	[ ]	[ ]

10. **Do you participate in the following on an annual basis?**

		Yes	No
1.	Church activities	[ ]	[ ]
2.	Alumni activities	[ ]	[ ]
3.	Professional activities		
	a. Local	[ ]	[ ]
	b. State	[ ]	[ ]
	c. National	[ ]	[ ]
4.	Community activities (i.e., government, youth, etc.)	[ ]	[ ]
5.	Other: _____	[ ]	[ ]

11. **How important is it for you to provide financial support to the following?**

1 = Not Important (NI)
2 = Somewhat Important (SI)
3 = Important (I)
4 = Very Important (VI)

	NI	SI	I	VI
1. Church	1	2	3	4
2. Community	1	2	3	4
3. Profession	1	2	3	4

12. **Please indicate which organization(s) you support financially on an annual basis by providing your typical annual gift:**

1. Optometry Alumni Association	$_____
2. Undergraduate Alumni Association	$_____
3. Church	$_____
4. United Way	$_____
5. Health Associations/Societies (i.e., cancer, lung, heart, etc.)	$_____
6. Environment Groups	$_____
7. The Arts (museums, theater, symphony)	$_____
8. Other: _____	$_____

13. **If you do not financially support any of the organizations listed above, why do you not provide support?**

_____

_____

_____

_____

14. While you were in Optometry school, did you receive any of the following financial aid?

	Yes	No
1. Grants - Pell	[ ]	[ ]
2. Grants - Other: _____	[ ]	[ ]
3. Gifts	[ ]	[ ]
4. Scholarships	[ ]	[ ]
5. Other: _____	[ ]	[ ]

15. **What was your total postgraduate loan debt for Optometry school (to the nearest $100.00)?**

$_____

16. **Are you actively practicing optometry in 1992?** [ ] 1. Yes [ ] 2. No

17. **Please indicate the range of your annual income (do not include your spouse's income):**

[ ] 1. Less than $20,000
[ ] 2. $20,000 - $39,999
[ ] 3. $40,000 - $59,999
[ ] 4. $60,000 - $79,999
[ ] 5. $80,000 - $99,999
[ ] 6. Over $100,000

18. **What is your current mode of employment?**

	Full-time	Part-time	Not Applicable
1. Private practice	[ ]	[ ]	[ ]
2. Optometric group practice	[ ]	[ ]	[ ]
3. Multidisciplinary practice	[ ]	[ ]	[ ]
4. Commercial practice	[ ]	[ ]	[ ]
5. Research	[ ]	[ ]	[ ]
6. Education	[ ]	[ ]	[ ]
7. Professional associations	[ ]	[ ]	[ ]
8. Other business pursuits	[ ]	[ ]	[ ]

19. **What is the population range for your area of practice?**

[ ] 1. Less than 50,000
[ ] 2. 50,000 - 99,999
[ ] 3. 100,000 - 499,999
[ ] 4. 500,000 or more

20. **What is your gender?** [ ] 1. Male [ ] 2. Female

21. **What is your current marital status?**

[ ] 1. Never married
[ ] 2. Married
[ ] 3. Separated
[ ] 4. Divorced
[ ] 5. Widowed

22. **What is your age?** _____

23. **In what state do you currently practice?** _____

If you have additional comments, please attach. Thank you for your participation.

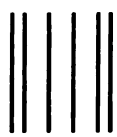
APPENDIX C

POST CARDS

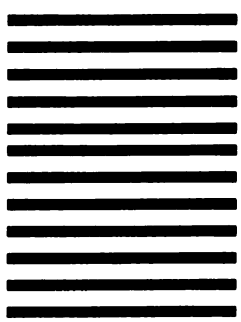
Dear Alumnus:

Thank you for participating in this alumni survey. Your responses will help provide valuable information to support optometry's future in education.

Please mail this postcard after you have mailed the completed survey to ensure your anonymity and to aid in follow-up studies. Thank you!



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES



BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO. 126 BLOOMINGTON, IN

Postage will be paid by addressee:

I.U. SCHOOL OF OPTOMETRY
Dean's Office
800 E. Atwater
Bloomington, IN 47405-9900

APPENDIX D

DECALS


FERRIS STATE UNIVERSITY
ALUMNI ASSOCIATION
FOUNDED
IN 1884
F. WOODBRIDGE N. FERRIS

ALUMNI

APPENDIX E

FOLLOW-UP SURVEY COVER LETTERS: FERRIS STATE UNIVERSITY AND INDIANA UNIVERSITY

Ferris State University
College of Optometry

May, 1992

Dear Alumnus:

An analysis of Ferris State University Optometry Alumni and their philanthropic actions is being conducted to provide for enhanced planning of programming for students and alumni.

Your name was selected in a random sample of Ferris State University Optometry Alumni. The original packet containing a survey, pre-paid return envelope, and post card was sent to you on May 1, 1992.

If you have already mailed the survey and post card, please disregard this letter and accept our thanks for your time and participation. If the survey has been misplaced, we encourage you to complete the enclosed survey and return it in the enclosed pre-paid envelope.

Please remember that this study is anonymous and the separate return of the post card allows follow-up on each survey form in the study.

Your cooperation in this study is vital to the on-going program planning for optometry alumni. Please take ten minutes to complete and return the survey and post card.

Our sincere thanks for your participation and best wishes for your continued success.

Kind regards,

Rachel A. Snyder, M.S.
Associate Professor

Alan L. Lewis, O.D., Ph.D.
Dean

Please mail this completed questionnaire in the enclosed envelope by June 1, 1992. If the envelope is missing, please mail to:

Alumni Survey
206 Pennock Hall
Ferris State University
901 South State Street
Big Rapids, MI 49307

After you have mailed the questionnaire, please return the post card so that you will not be contacted for follow-up purposes. DO NOT return the post card with the questionnaire to ensure anonymity.

Thank you for participating in this Optometry Alumni Survey.

APPENDIX F

OTHER ORGANIZATIONS RECEIVING DONOR SUPPORT

Other Organizations Receiving Donor Support

Ferris State Alumni

Community (4 responses)
MOPAC (4 responses)
Youth groups (2 responses)
FSU College of Optometry (2 responses)
The poor/homeless (2 responses)
Salvation Army (2 responses)
Public schools (2 responses)
Ferris State University
Braille Books
YMCA youth programs
Goodwill
Rotary
Lions
Hospital research association
Political
USCCA
PACs
Christian Care Center
Library
AFAF
Scientology International
AOA (dues)
Boy Scouts
Big Brothers
Boys'/Girls' Club
Other colleges
National Rifle Association
Photography association
Patient Equipment Locker
Aircraft Owners-Pilots Association
State OPAC

Indiana University Alumni

PACs (7 responses)
Other charities (3 responses)
PBS (2 responses)
State association (2 responses)
Lions Club (2 responses)
Abortion rights organizations
I-CARE
College
Community colleges
City Union Mission
Campus Crusade for Christ

North African Missions
Wycliffe Bible Translators
Hospice
Local police and fire departments
Student scholarship
Various Christian parachurch organizations
Red Cross
Salvation Army
Fellowship of Christian Optometrists
Kiwanis
Fraternal Order of Police
Goodwill
State optometric society
Youth for Christ
Compassion
Local charities

APPENDIX G

PRE-OPTOMETRY COLLEGES AND UNIVERSITIES ATTENDED

PRE-OPTOMETRY EDUCATION (OTHER THAN FSU)
Ferris State University Alumni

Michigan State University	(15)
Central Michigan University	(10)
University of Michigan, Ann Arbor	(8)
Wayne State University	(5)
Northern Michigan University	(3)
Alma College	(3)
Saginaw Valley State University	(3)
University of Michigan, Flint	(2)
Hillsdale College	(2)
Delta College	(2)
Hope College	
Spring Arbor College	
Grand Rapids Community College	
Western Michigan University	
Michigan Technological University	
Adrian College	
Albion College	
Olivet College	
Calvin College	
San Antonio Junior College	
Valparaiso University	

PRE-OPTOMETRY EDUCATION (OTHER THAN IU)
Indiana University Alumni

Purdue University	(5)
University of Illinois	(3)
Notre Dame	(2)
Kearney State College	(2)
Marquette University, WI	(2)
DePauw University	(2)
University of Tennessee	
(Private University)	
Eastern Illinois University	
Michigan State University	
Indiana State University	
University of South Alabama, Mobile	
University of Miami	
Miami University	
Hanover College	
Montclair State	
Knox College	
University of Oklahoma	
University of Nebraska	
South Florida	
University of Kentucky	
University of Wisconsin, River Falls	
Western Illinois University	
Baker University	
Ferris State University	
Brescia College	
Vincennes University	
Washburn University	
Shaw University	
University of Missouri, St. Louis	
University of Dayton	
Luther College	
Benedictine College	
Eureka College	
Siena College	
Wheaton College	
Indiana State University	
Wabash College	

APPENDIX H

STATES WHERE RESPONDENTS ARE CURRENTLY PRACTICING

States Where Respondents Are Currently Practicing

Alabama	Arizona
Colorado	Florida
Georgia	Hawaii
Idaho	Illinois
Indiana	Iowa
Kansas	Kentucky
Massachusetts	Michigan
Minnesota	Missouri
Nebraska	New Jersey
New York	North Carolina
North Dakota	Ohio
Pennsylvania	South Carolina
Tennessee	Texas
Utah	Virginia
Washington	Wisconsin
Wyoming	

APPENDIX I

QUALITATIVE FINDINGS: FERRIS STATE UNIVERSITY

Ferris State University

Responses to Item 8: Why did you enjoy or not enjoy your optometric college experience?

1. Friendships; the challenge.
2. Good instructors. Enjoyed the challenge; did not like some of the trivia.
3. Small classes allowed close relationships to be formed among students and faculty.
4. Made new friends--still friends after all these years. Enjoyed community. Good staff/administration.
5. Small town and class, mostly supportive faculty, affordable. The only problem I perceived was the lack of clinical experience, especially contact lenses.
6. Small class size, individual attention, close-knit class.
7. Fellowship, lasting friendships.
8. Classmates. Faculty on a personal level with students.
9. Good, approachable instructors who cared. Physical plant (i.e., classrooms and clinic) was good. I liked my classmates.
10. Enjoyed externships, small class size (got to know everyone), enjoyed instructors.
11. Camaraderie, educational stimulation, learning is fun.
12. In #18, you refer to "commercial practice." Throughout my education this negative terminology was constantly used. Having practiced seven years in a retail environment and being very active in elected offices in the state association, my experience tells me that my level of care to patients at least meets and more often exceeds that of my "professional" colleagues. I would appreciate the term "retail" rather than "commercial."
13. Excellent training with outstanding instructors.
14. Enjoyed friends, classmates, challenge of education, life in Big Rapids.

15. Small class size allowed development of close relationships that have perpetuated outside of optometry school.

16. I did not enjoy instructors "partying" with students so closely!--maybe that has changed now. I did enjoy my classmates; I still enjoy many close friendships I made while in school.

17. The main reason for my enjoyment was the optometry school size and very individualized educational opportunities.

18. Small class made for a tight-knit group. Professors had an interest in students in and out of the classroom.

19. Enjoyed: Due to the excellent quality of the educational experience, the caring nature of the faculty, and the small school atmosphere.

20. Close-knit professional atmosphere with fellow students and faculty.

21. The education was a hard road, but was a stimulating challenge. What really made the experience fun, however, was what was done away from the classroom and study time.

22. I enjoyed the small class size and resultant availability of assistance beyond the lecture when needed or desired.

23. The close friendships that developed.

24. Very stressful at times.

25. Small class size, access to faculty.

26. I enjoyed my Ferris experience because of the fine friends and classmates that the college community gave me. The faculty was accessible and seemed genuinely concerned with us as individuals. I felt lots of support from everyone, from the Dean on down to the opticians and techs.

27. Enjoyed the atmosphere at the College of Optometry and the excellent academic education received through an exceptional teaching staff.

28. Small school, close-knit group of students. Good faculty and effort toward teaching.

29. The camaraderie of fellow students successfully completing the difficult curriculum together seeded great friendships that continue today.

30. The class was small; therefore, all students received ample attention during labs and clinics. Also, the size was nice because every student got to know each other and staff.

31. I felt FSU College of Optometry was very thorough in our education, most of which can be directly related to the limited class size as well as excellent faculty. I felt very prepared when I graduated.

32. Enjoyed the intellectual challenge and the opportunity to improve lives. Did not enjoy the initial intensity which precluded learning for test memorization.

33. I found optometry school to be a challenge that I enjoyed meeting. It made me feel that I could accomplish any goal that I set for myself.

34. No other time gives you the opportunity to learn so much. I envy the new graduates the knowledge they have, even compared to ten years ago.

35. The education process at Ferris is very personal, and the faculty is extremely helpful in providing a well-rounded optometry education to each student.

36. I enjoyed the close working relationship with instructors and fellow students.

37. Low student/faculty ratio. Faculty's willingness to socialize with students outside of school activities.

38. Pro: Camaraderie and friendship. Con: Use little of what I have learned.

39. Excellent instruction and teachers, small class size, good camaraderie, ability to enjoy other activities.

40. Negative: Lack of financial resources. Positive: Social and activity aspects; some classes were very enjoyable.

41. I enjoyed the low faculty/student ratio and the friendly atmosphere of the college.

42. Small class--get to know classmates and faculty well.

43. I was sick of school; liked social part, though.

44. (1) Faculty/facilities were excellent. (2) Met many good friends in optometry school. (3) Felt I got an excellent education.

45. Good faculty/student ratio; good administration/faculty/student relations; friendly atmosphere.

46. Friendships that were developed.

47. I enjoyed the faculty present at that time, as well as the closeness to administrators and workers.

48. Basically positive due to small classes and lots of one-on-one interaction with instructors and other students.

49. I met many friends, with whom I still keep in contact. I enjoyed the small campus atmosphere of Ferris, and I felt confident of my education and future profession.

50. Small classes, close-knit students, small town.

51. I enjoyed the fact that the faculty was easily accessible for questions and advice. I also felt that the education was superior to other schools.

52. Enjoyed academic and clinical challenge.

53. I liked my classmates and enjoyed the smaller class size. Greater access to faculty was also a plus.

54. I enjoy learning; however, it can become rather frustrating.

55. Small classes provided better access to instructors.

56. I enjoyed studying for a new career and the student/teacher ratio--[I] didn't feel like a number. Feel I received a quality optometric education. Some classes were not served well due to poor instructors, i.e., anatomy, neuroanatomy, biochemistry, and some of the labs. I guess not every instructor can be a Dr. Keating! The best instructors seemed to also be involved in a practice outside the optometric clinic.

57. Challenging curriculum, great faculty, well-structured program.

58. Small class--very good relationships built. Good one-on-one education.

59. A challenging curriculum, helpful faculty, small class size.

60. Subject matter of study was fascinating. I enjoyed small class size--more conducive to learning and more opportunity for support system of classmates. Most instructors were excellent.

61. Small, personal classes.

62. Good friends, good faculty, interesting.

63. Enjoyed: Off-campus rotations, direct faculty attention. Did not enjoy: Disorganization in FSU CO's early years.

64. Close friendships with students and faculty. Small class size allowed me to participate in many organizations. Noncompetitive environment.

65. I enjoyed the closeness of the student body with each other and our faculty.

66. Should spend more time on clinically important information. This information should be heavily weighted in examinations as opposed to equally with board fodder. Make better clinicians instead of better test-takers. A systems approach would be much better; i.e., learn the biochem, anatomy, physiology, pathology, and therapeutics of one thing at one time, not over three years. Everything important should be on handouts. No note taking!!! It is much better to listen and learn than to scramble and write everything down.

67. For the most part, I enjoyed my optometric college experience because I was learning something that I could use in life to make a living and to help others.

68. Small class size--good friendships. Good teachers as a whole.

69. Did not enjoy: Same 32 people in your class all four years. Dr. Buss's anatomy class. Driving to the Grand Rapids VA Hospital. Woody Newman.

70. Social activities, friendships, education.

71. Did not enjoy always being poor. Did not enjoy always feeling behind in work.

72. Not enough business management experience in curriculum.

73. Small class size--individual teaching experience.

74. It raised my level of consciousness.

75. College is great; friends.

76. Very individualized training; good instructors.

77. (1) More direct thought needed from instructors. (2) More career direction. (3) More encounters to instill practitioner confidence.

78. Classmates were great. Most of the staff was very enjoyable to work with.

Responses to Item 13: If you do not financially support any of the organizations listed above, why do you not provide support?

1. Organized religion in this country has become nothing more than a massive, untaxed mind-control industry for societal hypocrites.
2. Recently purchased a practice.
3. I do not support the arts because I do not enjoy the symphony, and I have not been asked to support theatres or museums.
4. Lost contact with Alumni Association after moving out of state.
5. There is only so many groups you can afford to support.
6. Only so much money to spread around.
7. I prefer to pick a few organizations and contribute accordingly.
8. Priorities on how much to give totally and budget accordingly. Some organizations are not as high on list; some I participate in, others I do not.
9. Do not attend church regularly. The others I do not feel strongly enough about to support.
10. Lack of funds or disagreement with groups' concepts and beliefs.
11. I feel no obligation to support alumni associations. I will never make any donations to FSU Optometry School. I was overlooked too many times when money awards were available, supposedly on need, so that other students who were totally financially irresponsible with their own money could also waste the award money--those who received such awards should be willing to donate, but I never will.
12. The above support is based on financial ability/priorities. With two dependents in college, other donations take a lower priority.

13. I dropped out of the AOA because dues were too high--I still give to MOPAC. Alumni optometry I don't support because when I needed financial help none was provided, and other students received help that wasn't really needed--or looked into enough.

14. Did not receive undergrad degree, so have not been contacted by that alumni association.

15. I cannot contribute money to every organization that comes asking for it.

16. Purchased practice less than two years ago, and money is tight.

17. Do not generally believe in what they stand for [organizations he does not contribute to].

18. Undergrad--MSU--such a big university! They probably don't need $100 as much as Ferris does.

19. We don't know what the undergraduate alumni association is. As for the arts, I don't like the theater or the symphony.

20. Do not support undergrad alumni association because I did not attend FSU for undergrad. Do not support United Way anymore because of their ties to Planned Parenthood. The support I lend to the arts is in the form of participation in their activities only.

21. Apathy.

22. Haven't found the right [environmental] organization, but do recycle.

23. I did not graduate from CMU [re: undergraduate alumni association]. I do not get involved with many of the "arts."

24. No worthy [environmental] group has asked.

25. I have been following FSU's financial problems in the news. I will become more active financially when the university learns to prioritize its spending (like I have to do)!! Number 1: Stop creating jobs for athletic coaches after they quit coaching. Number 2: Redirect your priorities to academics instead of sports. Number 3: You have too many administrators! (You need more Indians and less chiefs.)

APPENDIX J

QUALITATIVE FINDINGS: INDIANA UNIVERSITY

Indiana University

Responses to Item 8: Why did you enjoy or not enjoy your optometric college experience?

1. Mostly the small, intimate class sizes were a plus, while there were several classes that were useless and could have been placed with business/accounting classes.

2. Enjoyed friendships with other students. Did not enjoy capricious professional arrogance and learning irrelevant trivia.

3. I was around a lot of good people--faculty and students. Bloomington is a beautiful town. I loved what I was trying to learn to do.

4. Enjoyed: Challenge of academics, classmates, clinical optometric faculty, external rotations. Did not enjoy: Frequent comparison of O.D. versus M.D.; grading system (should be pass/fail/pass with honors).

5. Lasting friendships established. Events associated with Indiana University and School of Optometry.

6. Quality of education, [Indiana University's] pleasant campus, lasting friendships.

7. Although the optometric sciences are very interesting and their study and practice satisfying, the climate of optometry and health care, in general, has changed drastically over the past 20 years. I don't feel I was adequately prepared for "real world" health care.

8. Pros: Location--Bloomington and Indiana University have a wonderful atmosphere, lots to do and enjoy. IU optometry has good didactic program. Cons: Poor clinical experience through IU clinic and CCC --not enough patients. Also, poor courses in business and legal aspects of optometry--totally worthless at that time.

9. I found classes interesting and stimulating. College life in general was active and fun.

10. I enjoyed the interaction with the faculty, and I appreciated their willingness to help. However, I felt at times there seemed to be a lack of continuity, and some things were left out of courses because professors felt it had been covered by someone else.

11. Interaction with optometry students and still on campus with many friends from undergraduate. The learning experience.

12. Preparation for a career was gratifying. Enjoying the new knowledge. Enjoying midwestern living.

13. Pros: Small class size was nice; some good classes and teachers. Cons: Education could have been better; some useless classes and teachers.

14. Good education, pleasant community.

15. I enjoyed working with most of the students in our class and many of the professors.

16. I like my work and enjoyed the other students.

17. I enjoyed the small class size, the camaraderie among students, and the city of Bloomington.

18. Wide variety of people and great friends I met.

19. Best experience of my life.

20. I enjoy learning.

21. I enjoyed the experience because I felt that the class was very close. We really got to know one another.

22. The atmosphere of the school was warm and friendly. Fellow students and teachers were extremely supportive. My classmates really helped make it enjoyable--still keep in touch with many of them.

23. Nice campus, nice students, good attitude at IU.

24. Too much P.O.

25. I was a student with a wife and two children and found college to be like a job. The experience was OK but nothing I would care to repeat again. Certainly there was plenty of anxiety regarding my preparedness for the future.

26. It was a great four years before entering the "real world."

27. I was learning something I wanted to learn, not something I had to learn. Also, I got to be associated with some great people.

28. Excellent--personally oriented.

29. Relatively small class size and good fellow students.

30. I enjoyed the bonding with fellow classmates and the excitement of learning as much as I could about my chosen profession.

31. Everything about optometry school was not so pleasant, but what is? I remember how frustrating some of my instructors were and how petty some of the requirements were, but as a whole, I believe I received an adequate education.

32. Good friends; you're only young once.

33. The learning of new ideas and a close relationship with others. Enjoyed the activities such as school screenings and off-campus clinics.

34. Lifelong friends, interesting curriculum.

35. I enjoyed learning the profession and building some relationship with O.D.s that remain important to me. I did not enjoy some of the competition for grades that some of my classmates and instructors fostered.

36. Getting to know future colleagues. Enjoyed learning therapeutics and ocular disease. Did not enjoy optics or behavioral optometry as much, although I now wish I had since that is what I deal with <u>most</u> on day-to-day basis.

37. I enjoyed because of the staff dedication to optometry; excellent curriculum and its relevance to actual practice needs.

38. I am fascinated with anatomy, biology, and physiology. Optometry allows implementation of these into a clinical environment. I believe the education should be rigorous, but on certain occasions the student and knowledge seemed to "take a backseat" to professor egos and grades.

39. Like all things/experiences in life, some aspects were very good, while others were not.

40. <u>Not enjoy</u>: When we got to the clinic part, the instructors expected you to already know, i.e., how to fit contacts, so they didn't want to waste their time teaching (they would rather discuss football), and then the more questions you asked, the lower your grade was.

41. Challenging and interesting studies and excellent and lasting friendships formed.

42. Challenging but stressful.

43. A challenging time, yet the freedom to learn independently at our own pace. Had many good professors. As I look back, it was enjoyable to be in that setting, free of the real world's stresses.

44. Close-knit peer group, lifelong friends.

45. Great learning environment, good friends, close relationship with professors.

46. Beautiful campus/lots of activities. Needed more clinical exposure from metropolitan area versus Bloomington.

47. Administration was unresponsive to students' needs. Curriculum changed with no warning. Little preparation for real-world optometry. Inadequate optometry career counseling. Some professors were teaching unnecessary curriculum; i.e., Lee Guth, Merrill Allen confused me permanently.

48. Camaraderie; taught while in school; academic setting, between undergrad and grad school in character; Bloomington is a great city.

49. University setting was important for overall enjoyment.

50. The pressure was off to have to maintain a high GPA during undergrad. I was able to relax, have fun, learn a profession, and pass board exams.

51. Met great people who are lifetime friends; Optic Cup.

52. Enjoyed camaraderie with classmates. Did not enjoy (1) irrelevant and outdated courses and coursework and (1) lazy professors who haven't varied their lecture notes (yellowed with age) since they started teaching--Dr. Schick.

53. Teaching quality was good. Liked the extracurricular activities a large university offers.

54. [I enjoyed] classmates, Bloomington, many classes. I disliked some classes where almost nothing was taught. I would have expected some administrative action. All of my class felt the same way.

55. It was like a big family, all with a common goal (to graduate).

56. I enjoy people and the challenge of learning in any new course of study. Optometry allowed me to do both at the same time.

57. It was hard work, but it was a good foundation for what I'm doing now.

58. Interaction with classmates--evening basketball--IMs, etc. Clinical training, including external clinics.

59. It was a tough curriculum and very challenging--a good learning experience, but I really wouldn't say I experienced joy.

60. Enjoyed IU atmosphere and campus.

Responses to Item 13: If you do not financially support any of the organizations listed above, why do you not provide support?

1. I have been in the USAF for the past three years and have not felt the moral imperative. Serving my country has been my contribution to society.

2. Limited budget.

3. Do not have enough money to support them at this time.

4. There is no theater in our local community.

5. Still paying off school loan.

6. At present I am barely meeting my living expenses, undergraduate loans, graduate loans, auto loans, and practice loan.

7. I do not support their current policies [#1, 2, 4].

8. I don't specifically donate to IU School of Optometry because (1) I don't feel I'm well enough off to do it. (2) I still feel school made money from me while I was a student. (3) I'm still paying off school loans, for Christ's sake. (4) I paid my tuition--what more do you want?

9. I have just bought a private practice after eight years of putting up with Superstore Optometry. I am broke. Every dime goes to PRIVATE optometry.

10. I do not support alumni associations because (1) I paid tuition, (2) I am busy investing in my practice and paying off those bills, (3) I have been paying back student loans, (4) next I have to pay for my retirement and kids' education.

11. STUDENT LOANS!!

12. I believe in supporting (and used to contribute) and belong to professional organizations, etc. Financial situations have been approximating disaster.

13. Income does not allow me to support every association. I do support a select few locally and state. May do more as income allows.

14. Still paying my loans for optometry school.

15. I worked hard at odd jobs to get myself through school, and my education will not be paid for until 1994 or 1995, at which time I may begin to better support future education at IU.

16. Cannot give to everybody.

17. I have too much debt in a new house and school loans at this time.

18. Still paying off student loans and can't afford any more donations.

19. Lack of funds.

20. Only so much money available to contribute--priorities dictate who receives money.

21. Our local [community] colleges are struggling, and Indiana seems to meet its financial goals without me.

22. Priorities.

23. I support optometry through the AOA, period. United Way is charity by the whole--I give individually to those of my choice.

24. Feel too much money [is] spent for administrative purposes [by United Way].

25. I do not support the Alumni Association or the Optometry Association because they do not approve of commercial practice. I see no reason to support an institution that puts down the way its graduates practice, based solely on location.

26. Our giving reflects the importance that we place on Christian values and moral living, and thus we only give to those organizations with like-minded goals.

27. Realizing that my profession needs support--in addition to hefty annual AOA/WOA dues--political contributions have been a must to assure TPA rights. Maintain optometry as a primary health care provider in Wisconsin.

28. Undergraduate Alumni Association--do not support on a regular basis due to involvement with other organizations and lack of available cash.

29. (1) Have bitter memories of professors and Dean Heath. (2) Extremely poor and outdated teaching. (3) Irrelevant courses. There are a few outstanding courses and professors (youth), the rest being tired, old, worthless, lazy turds who collect a paycheck for teaching outdated trivia. Get rid of tenure!

30. Lack of sufficient income to provide for self, family on one income. Not enough money for one income in optometry profession.

BIBLIOGRAPHY

BIBLIOGRAPHY

Babbie, E. (1990). Survey research methods (2nd ed.). Belmont, CA: Wadsworth.

Bakal, C. (1979). Charity U.S.A. New York: Times Books.

Bartolomeo, J. S. (1986). Using survey research to improve alumni relations. In A. W. Rowland (Ed.), Handbook of institutional advancement (pp. 485-489). San Francisco: Jossey-Bass.

Boser, J. A. (1990, April). Surveying your alumni by mail: Effect of booklet . . . . Research in Higher Education, 31, 149-159.

Brakeley, G. (1980). Tested ways to successful fund raising. New York: American Management Association.

Bremner, R. H. (1988). American philanthropy (2nd ed.). Chicago: University of Chicago Press.

Brittingham, B. E., & Pezzullo, T. R. (1991). The campus green: Fund raising in higher education (ASHE-ERIC Higher Education Report No. 1). Washington, DC: School of Education and Human Development, The George Washington University.

Carbone, R. (1986). An agenda for research on fund raising. (ERIC Document Reproduction Service No. ED 275 218)

Clotfelter, C. T. (1989a). Federal tax policy and charitable giving. In R. Magat (Ed.), Philanthropic giving (pp. 105-127). New York: Oxford University Press.

Clotfelter, C. T. (1989b, December). The impact of tax reform on charitable giving: A 1989 perspective. Durham, NC: Center for the Study of Philanthropy and Voluntarism, Institute of Policy Science and Public Affairs, Duke University.

Connolly, M. S., & Blanchette, R. (1986). Understanding and predicting alumni giving behavior. New directions for institutional research, 51(3). San Francisco: Jossey-Bass.

Council for Financial Aid to Education. (1989). Voluntary support of education. New York: Author.

Curti, M., & Nash, R. (1965). Philanthropy in the shaping of American higher education. New Brunswick, NJ: Rutgers University Press.

Douglas, J. (1983). Why charity? The rationale for a third sector. Beverly Hills, CA: Sage.

Dunn, J. A., Jr. (1986). Bringing it all together. New directions for institutional research, 51(3). San Francisco: Jossey-Bass.

Dunn, J. A., Jr. The future agenda for alumni research. New directions for institutional research, 60(4). San Francisco: Jossey-Bass.

Fisher, M. B. (1988). Surveying your alumni. New directions for institutional research, 60(4). San Francisco: Jossey-Bass.

Franck, G., Anderson, R. E., & Bernard, C. (1987). Tax reform and higher education reform. New directions for higher education, 40(2). San Francisco: Jossey-Bass.

Frick, J. W. (1986). Educational philanthropy: A perspective of three decades. In A. W. Rowland (Ed.), Handbook for institutional advancement (pp. 361-370). San Francisco: Jossey-Bass.

Freeman, R. A. (1965). Crisis in college finance. Washington, DC: Institute for Social Science Research.

Gardiner, P. M. (1975). Attitudes of alumni with emphasis on donor and non-donor characteristics. Unpublished doctoral dissertation, The Ohio State University.

Gold, S. D. (1990). Financial planning under economic uncertainty. New directions for higher education, 18(1). San Francisco: Jossey-Bass.

Goldberg, D. (1988, April). The young and the generous. Currents, 14, 6-9.

Goldberg, D. (1989, March). How the other half gives. Currents, 15, 11-14.

Green, C. A. (1990). Target new markets. New directions for higher education, 71. San Francisco: Jossey-Bass.

Grill, A. J. (1988). An analysis of the relationships of selected variables to financial support provided by alumni of a public university. Unpublished doctoral dissertation, Pennsylvania State University.

Haddad, F. (1986). An analysis of the characteristics of alumni donors and non-donors at Butler University. Unpublished doctoral dissertation, West Virginia University.

Hofmann, H. (1990). Developing new contributor constituencies. New directions for higher education, 71. San Francisco: Jossey-Bass.

Hueston, F. R. (1989). Predicting factors for charitable giving from alumni of a land-grant institution. Unpublished doctoral dissertation, New Mexico State University.

Hungate, T. L. (1946). Financing the future of higher education. New York: Teachers College, Columbia University.

Issac, S., & Michael, W. B. (1981). Handbook in research and evaluation (2nd ed.). San Diego: EdITS Publishers.

Johnson, D. B. (1982). The free-rider principle, the charity market and the economics of blood. British Psychological Society, 21, 93-106.

Kegel-Flom, P. (1989). Surveying optometry school alumni: A multifaceted approach. Journal of the American Optometric Association, 60(8).

Keller, A., Stahl, L., & Lakin, D. H. (1990, July). Ferris optometry graduates' critique of career choice and quality of their education. Michigan Optometrist, 69.

Korvas, R. J. (1984). The relationship of selected alumni characteristics and attitudes to alumni financial support at a private college. Unpublished doctoral dissertation, University of Missouri-Kansas City.

Kotler, P. (1982). Marketing for non-profit organizations. Englewood Cliffs, NJ: Prentice-Hall.

Leslie, L. (1988, March/April). Donor behavior and voluntary support for higher education institutions. Journal of Higher Education, 59, 115-132.

Leslie, L., & Ramey, G. (1986, October). When donors give. Currents, 11, 25-26.

Linger, J. M. (1991, February 6). Financing education Greater need, less aid. Journal of the American Medical Association, p. 663.

Loessin, B. A., Curonio, M. A., & Borton, G. L. (1986). Measuring and expanding sources of private funding. New directions for institutional research, 51(3). San Francisco: Jossey-Bass.

Mackin, R. C., Egan, D. J., & Garzia, R. P. (1990). Practice profile of University of Missouri-St. Louis optometry graduates. Journal of the American Optometric Association, 61(8).

Magat, R. (Ed.). (1989). Philanthropic giving. New York: Oxford University Press.

Martini, C. (1991, August 21). Editorial: Office of Vice-President for Medical Education. Journal of the American Medical Association, pp. 998-1000.

Maves, K. K. (1988). Managing information on alumni. New directions for institutional research, 60(4). San Francisco: Jossey-Bass.

McCarthy, K. D. (1989). The gospel of wealth: American giving in theory and practice. In R. Magat (Ed.), Philanthropic giving (pp. 46-60). New York: Oxford University Press.

McIntyre, J. (1981). Interests and motives of volunteers. In F. C. Pray (Ed.), Handbook for educational fund raising (pp. 169-172). San Francisco: Jossey-Bass.

McManman, C. E., Tyler, L. K., & Lakin, D. H. (1987, August). Ferris alumni survey 1979-1986. Michigan Optometrist, 66.

McMillan, J. H., & Schumacher, S. (1984). Research in education. Boston: Little, Brown.

McNally, F. E. (1984). An analysis of alumni philanthropy related to personal academic and social characteristics. Unpublished doctoral dissertation, University of San Francisco.

Melchiori, G. S. (1988a). Alumni research: An introduction. New directions for institutional research, 60(4). San Francisco: Jossey-Bass.

Melchiori, G. S. (1988b). Applying alumni research to fundraising. New directions for institutional research, 60(4).

Midlarsky, E., & Hannah, M. E. (1989). The generous elderly: Naturalistic studies of donations across a life span. Psychology and aging, 4(3), 346-351.

Miller, K. L. (1987). The development and field testing of a marketing survey instrument for institutional advancement in collegiate institutions. Unpublished doctoral dissertation, Vanderbilt University.

Miller, M., & Casebeer, A. (1987). Donor characteristics of college of education alumni: Examining undergraduate involvement. (ERIC Document Reproduction Service No. ED 323 836)

Millett, J. D. (1952). Financing higher education in the U.S. New York: Columbia University Press.

Moden, G. O., & Williford, A. M. (1988). Applying alumni research to decision making. New directions for institutional advancement, 60(4). San Francisco: Jossey-Bass.

National Education Association. (1992). The NEA 1992 almanac. Washington, DC: Author.

Park, R. (1990, July). Graduating medical students' debt and specialty choices. Academic Medicine, 65, 485-486.

Payton, R. L. (1989). Philanthropic values. In R. Magat (Ed.), Philanthropic giving (pp. 29-44). New York: Oxford University Press.

Pezzullo, T. R., & Brittingham, B. ((1990, July/August). The study of money. Currents, 16, 44-49.

Ransdell, G. A. (1986). Understanding professional roles and mission. In A. W. Rowland (Ed.). Handbook for institutional advancement (pp. 373-386). San Francisco: Jossey-Bass.

Robinson, D. K. (1985). Federal tax policy and higher education: Assessing recent developments. New directions for institutional research, 12(1), 27-44.

Rowland, A. W. (Ed.). (1986). Handbook of institutional advancement. San Francisco: Jossey-Bass.

Salholz, E. (1992, January 13). The empathy factor. Newsweek, p. 23.

Schiff, J. (1989). Tax policy, charitable giving, and the non-profit sector: What do we really know? In R. Magat (Ed.), Philanthropic giving (pp. 128-142). New York: Oxford University Press.

Schwartz, J. J. (1986). Role and selection of professional counsel. In A. W. Rowland (Ed.), Handbook for institutional advancement (pp. 350-360). San Francisco: Jossey-Bass.

Skinner, B. F. (1978). The ethics of helping people. In L. Wispe (Ed.), Altruism, sympathy and helping (pp. 249-262). New York: Academic Press.

Spaeth, J. L., & Greeley, A. M. (1970). Recent alumni and higher education. New York: McGraw-Hill.

Steeples, D. W. (1990). Concluding observations. New directions for higher education, 71. San Francisco: Jossey-Bass.

Strand, B. J. (1986). Building a donor information base. In A. W. Rowland (Ed.), Handbook of institutional advancement (pp. 337-349). San Francisco: Jossey-Bass.

Survey reveals giving and volunteering patterns of Indiana residents. (1992, Spring). Philanthropy matters. Indianapolis: Indiana University Center on Philanthropy.

Unger, L. S. (1991, December). Altruism as a motivation to volunteer. Journal of Economic Psychology, pp. 71-100.

Voluntary support to higher education. (1992, August 26). Chronicle of Higher Education, p. 34.

Webster's new world dictionary (2nd college ed.). (1976). Springfield, MA: G & C Merriam.

White, A. H. (1989). Patterns of giving. In R. Magat (Ed.), Philanthropic giving (pp. 65-71). New York: Oxford University Press.

Wispe, L. (Ed.). (1978). Altruism, sympathy and helping. New York: Academic Press.