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Alumni as givers: An analysis of donor-nondonor behavior at a Comprehensive I institution

Linda Faye Burgess-Getts

College of William & Mary - School of Education

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Alumni as givers: An analysis of donor-nondonor behavior at a Comprehensive I institution

Burgess-Getts, Linda Faye, Ed.D.
The College of William and Mary, 1992
ALUMNI AS GIVERS: AN ANALYSIS OF
DONOR NONDONOR BEHAVIOR AT A COMPREHENSIVE I INSTITUTION

A Dissertation
Presented to
The Faculty of the School of Education
The College of William and Mary in Virginia

In Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

by
Linda Burgess-Getts
March 1992
ALUMNI AS GIVERS: AN ANALYSIS OF
DONOR NONDONOR BEHAVIOR AT A COMPREHENSIVE INSTITUTION

by

Linda Burgess-Getts

Approved March 1992 by

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Chair of Doctoral Committee

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Thomas J. Ward, Ph.D.
DEDICATION

The lives of Mary, Julia, and Gertrude touched the hearts of many who knew them. Hard work, high spirits, and humanitarianism were beacons that guided these three women, first as young mothers, responsible for their families, and later as mature business entrepreneurs. I proudly dedicate this dissertation to the memory of my mother and two grandmothers.
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**VITA**

**ABSTRACT**
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ALUMNI AS GIVERS: AN ANALYSIS OF
DONOR NONDONOR BEHAVIOR AT A COMPREHENSIVE INSTITUTION
Chapter 1
INTRODUCTION TO THE PROBLEM

There has been limited research published about the characteristics of alumni donors in higher education. The majority of the research that has been done focused on large public and private institutions and two small colleges. Consequently, such research findings may not be generalizable to Comprehensive I institutions. Furthermore, the present knowledge of fund raising does not contain general theories that are available for the guidance of fund raising practitioners (Carbone, 1986).

A logical and efficient method of prospecting and profiling alumni is important to strategic planning in higher education (Melchiori, 1988). Brittingham and Pezzullo (1990) agree that developing models of donors' behavior is essential to the successful marketing and operation of fund-raising efforts. It has become even more imperative to seek support in an efficient manner from the swelling roles of alumni due to escalating costs of mail solicitation (Grill, 1988). A systematic approach to soliciting funds from alumni can also increase favorable attitudes and supportive behaviors toward the institution (Rowland, 1986). The survey can also help create strategy, establish realistic goals, and provide guidance on how best to achieve these goals (Rowland, 1986).
Background of the Study

In the decade of the nineties, colleges will be required to cope with continuing inflation in operating costs, decreasing support from public, state, and federal funds, as well as a projected decline in enrollments and shifting student demographics. Public institutions can no longer be passive in respect to philanthropy. According to Keller (1983), retrenchment, constricting finances, new competition, marketing and rapid changes in the academic and demographic areas are major concerns for higher education.

The successful campaign to raise $70 million in the 1960's by the University of Michigan marked the first systematic attempts to raise funds by public institutions (Grill, 1988). Since then, "... According to the annual survey report (Voluntary Support of Education) conducted by the Council for Financial Aid to Education, Inc. (CFAE), private support to public colleges and universities has quadrupled in the last five years" (Harris, 1988 p.5).

The Council for Financial Aid to Education recognizes six sources of voluntary support to higher education: alumni, non-alumni, foundations, business corporations, religious denominations, and all others. Alumni donors are the largest source of voluntary support to higher education. They account for 25% of the total dollars given (Council for Financial Aid to Education, 1989). According to Giving
USA's annual report on philanthropy for 1989, individuals donated almost $4.4 billion to colleges and universities, an increase of 10 percent over 1988 (Weber, 1990). Alumni became a significant part of philanthropy in the 1920's. Today alumni support is viewed as a measure of institutional worthiness for further support (Beeler, 1982; Grill, 1988). Because the solicitation of alumni gifts can generate increased giving by nonalumni philanthropists, higher education has placed greater emphasis on the solicitation of alumni gifts (Beeler, 1982; Grill, 1988).

**Significance of the Study**

The attempt to improve the funding of higher education in competitive times needs a consistent, purposeful approach to motivate voluntary support by alumni. No previous studies were identified which dealt with research on alumni donor and nondonor philanthropy in Comprehensive I category institutions. Information derived from this study would make a useful contribution toward the development of a theoretical component of alumni philanthropy in Comprehensive I colleges. The understanding of donor and nondonor behavior can provide the basis for more effective fund-raising techniques that can help ameliorate the financial future of Comprehensive I colleges and universities. This study could aid other Comprehensive I
colleges in perpetuating the allegiance of their supporters
by providing clues of supporter expectations of the college.

PURPOSE OF THE STUDY

Research Questions

The purpose of this study was to determine to what extent selected personal, academic, behavioral and attitudinal variables would discriminate between donors and nondonors in a Comprehensive I institution. The variables selected for inclusion in the study were chosen for their potential discriminating abilities in studies of alumni philanthropy as revealed by the literature.

Research Question One

To what extent do personal characteristics (current age, gender, marital status, occupation, income, and education of parents) differentiate between donors and nondonors?

Research Question Two

To what extent do academic characteristics (year of graduation, total years of attendance, and department/school of major) differentiate between donors and nondonors?

Research Question Three

To what extent do attitudinal and behavioral characteristics (emotional attachment to the institution,
undergraduate participation in extracurricular activities, postgraduate involvement with the institution) differentiate between donors and nondonors?

The dependent variable for this study was alumni donor status: donor or nondonor. Donors were those graduates of Christopher Newport College who made any financial contribution from 1963 to 1991. Nondonors were those graduates who made no contribution to the college from 1963 to 1991.

The independent variables were expected to discriminate between donors and nondonors. The independent variables were the following: age, gender, marital status, occupation, income, education of parents, year of graduation, total years of attendance, academic major, emotional attachment to the institution, undergraduate extracurricular activities and postgraduate involvement with the institution.

Limitations of Study

This study included only alumni who (1) made a contribution to the college during the years 1963-1991, or (2) had never made a contribution during 1963-1991.

This study included alumni who contributed five dollars or more at any time during the years 1963-1991 and did not differentiate high or low donors.
There is an inherent inability to control for the influence of socially desirable responses on self-report questionnaires. However, the assurance of anonymity in the cover letter may have reduced the effect in this study.

The demographic characteristics of the responding sample may limit the generalizability of the study to undergraduate alumni from Comprehensive I colleges.

The importance of the variables used in the discriminate analysis could be influenced by the addition or substitution of other independent variables.

The analysis reflected current tax legislation and present economic factors. A change in either tax laws or economic conditions could influence the philanthropic characteristics of the sample population.

Operational Definitions

Alumni: graduates who held undergraduate degrees from Christopher Newport College during the years 1963-1991 inclusive.

Donor: any undergraduate alumnus of Christopher Newport College who made a financial contribution of any amount during the years 1963-1991 inclusive.

Nondonor: any undergraduate alumnus of Christopher Newport College who made no financial contribution during the years 1963-1991 inclusive.
Comprehensive I: institutions that offer a liberal arts program as well as at least two professional or occupational programs and enroll at least 2,000 students. Many offer master's degrees, but do not offer doctorates (The Carnegie Foundation for The Advancement of Teaching, 1980). (See appendix A for a list of benchmark institutions).

Procedures

A mail questionnaire was used for gathering data for this study (Dillman, 1978; Borg & Gall, 1989). Every effort was made to achieve a response rate in excess of 70% in order to provide reliability and validity.

Borg and Gall (1989) recommended a quality letter of transmittal that was brief yet conveyed information and impressions. The letters were personally signed by the President of Christopher Newport College and printed on his stationary in order to convey the important nature of the questionnaire. Confidentiality of response was ensured by the use of a number code on the questionnaire. A postage-paid envelope was included to return the questionnaire. All paper stock was of high quality.

Three weeks after the initial mailing, a follow-up letter, another copy of the questionnaire, and a return envelope were mailed to nonrespondents. Another recommended strategy to ensure a high return rate was the enclosure of a
token in the questionnaire. A pencil imprinted with the Christopher Newport College logo was included with these questionnaires in an effort to establish a sense of trust and good will toward the study.

The design of the questionnaire was carefully structured in order to facilitate completion of the form. The simple, quick, easy-to-complete format was intended to encourage timely participation.

**Developing the Questionnaire**

The questions used in the questionnaire were derived, in general, from instruments tested and used in previous research on characteristics of alumni donors and non-donors (Beeler 1982; Grill 1988). Validity, the extent to which a measurement instrument measures what it is supposed to measure, was partly accomplished by a thorough review of the literature to discover characteristics of alumni donors and non-donors. The questions were revised by the staff members of the Development Office at Christopher Newport College in order to determine if major topics were covered and if specific study objectives were carefully defined. Closed-form items were structured for ease in data entry.

Construct validity was addressed by using experts' judgment to evaluate the domain specifications and the adequacy of the item sampling. An early draft of the
questionnaire was discussed with the Education 663 class at the College of William and Mary. Feedback from this class was introduced as further drafts were developed. All of the Vice Presidents at Christopher Newport College were asked to provide final approval of the instrument also.

Sampling

The Vice President for Development at Christopher Newport College assisted in making arrangements for the sample selection. A computer-generated listing of the population, graduates of Christopher Newport College from the years 1961 to 1991 whose home addresses were current, was drawn. The sample selection was manually drawn from this listing by the researcher. The sample was limited to donors and nondonors of Christopher Newport College between 1961 and 1991. There were 6094 graduates from the years 1961 to 1991. Of this number 1804 were donors and 4290 were nondonors. One hundred fifty donors and one hundred fifty nondonors were randomly selected for inclusion in the study. Reliability was increased by a sample size large enough to provide for the precision desired by the investigator and to allow for the variance found within individual responses. For the 1804 donors, a list of random numbers indicated that the donors be divided into groups of twelve with one selection made from each group. For the 4290 nondonors,
groups of twenty-nine were necessary with one selection made from each group.

Data Collection

The questionnaire was mailed out on September 23, 1991. The mailing included a cover letter, an imprinted CNC pencil, the questionnaire and a postage-paid addressed return envelope.

Respondents were given one week to return the completed questionnaires.

At the end of four weeks, a follow-up letter along with a replacement questionnaire was sent to any nonrespondents. After a week, the researcher attempted telephone contacts with any remaining nonrespondents.

The researcher coded and entered the data from the questionnaires as they came in. This was done on a word processing program that could be transferred to a statistical program later.

Data Analysis

The Statistical Analysis System Package (SAS) was used to examine the data. The primary statistical technique used to analyze group differences was discriminant analysis which allowed the investigator to study differences between two or
more groups with respect to several variables simultaneously. As the groups were compared on selected independent variables, SAS took into consideration the interrelationships and power of the combined variables. Optimal distinction between the groups was achieved as the computer weighed and linearly combined the discriminating variables in order to force an optimal distinction between groups (Klecka 1984).
Chapter 2
REVIEW OF LITERATURE AND RELATED STUDIES

This chapter summarizes the research relative to alumni philanthropy and clarifies the need for this study and the inclusion of the selected variables.

Background

Interest in marketing research in the nonprofit sector, tax changes, and increasing fund-raising activities have sparked recent interest in empirical research on alumni giving (Brittingham & Pezzullo, 1990; Carbone, 1986; Melchiori (1988). Kotler (1982) defined marketing as "... analysis, planning, implementation, and control of carefully formulated programs designed to bring about voluntary exchanges of values with target markets for the purpose of achieving organizational objectives" (p.6). A university operates in four markets: student, faculty, donor, and public opinion. Each market is made up of subgroups called segments with particular needs, perceptions, and preferences. The donor market includes alumni, non-alumni, foundations, business corporations, religious denominations, and others (Kotler, 1982). Alumni provide the largest source of voluntary support to higher education. A quarter of the total dollars given come from
Keller (1983) emphasized the importance of the marketing concepts of segmentation, perceptual mapping, and positioning for higher education. Alumni surveys can help identify market segments, set priorities for prospects within the group and suggest giving potential without individual research (Melchiori, 1988).

Alumni surveys can also provide the kinds of information needed to assess attitudes about the institution. The fierce competition among institutions for recognition of accomplishments, political advantages, and students can be enhanced by organized marketing of alumni. Understanding the widely held perceptions of alumni is important to establishing a comparative advantage. "... Understanding donors' motivations, determining who is psychologically or emotionally connected to the institution and why—is essential to the successful marketing of fund-raising efforts. . ." (Brittingham & Pezzullo, 1990, p.35) The development vice president can then use this information to help position the institution in the network of 3,100 colleges and universities.

"Comparative market strategy, or what they call 'positioning strategy' is a growing concern in the face of increasingly confusing competition" (Keller, 1983, p.147). The growing competition for charitable gifts makes it paramount that development vice presidents have access to
more sophisticated data for planning, prioritizing, and projecting budgets and goals (Melchiori, 1988).

The numbers of alumni at all institutions are increasing dramatically. This is of particular concern to fundraisers because of the possibility of an increase in annual base funds which could be eroded unless carefully segmented, profiled, and ranked. "Such efforts help institutions get to know the attributes of their alumni and donors, project their potential numbers, and plan and budget accordingly (Melchiori, 1988, p.11).

Research has occurred for some time without linking central administrators, institutional researchers, and academics. In an attempt to provide guidance for institutional research on alumni, Gerlinda Melchiori wrote *Alumni Research: Methods and Applications* in 1988. No national organization facilitates institutional alumni research. However, The Council for the Advancement and Support of Education (CASE) and the Association for Institutional Research (AIR) emphasize alumni research through conferences, national awards, and publications. The Independent Sector in Washington, D. C., promoting not-for-profit philanthropy, has helped to create nineteen Centers for Philanthropic Research across the nation.

Alumni, both graduates and non-graduates, have been the subject of doctoral dissertations, longitudinal studies (Dunham, 1969; Spaeth and Greeley, 1970), and in-house
studies (Simpson and Hirsch, 1968). Doctoral dissertations constitute the majority of alumni research. Usually for institutional consumption, they provide no clear theories of alumni behavior due to differences in size, characteristics, and location of the institution. These highly specialized applications of alumni research have remained in the development departments of each institution. Most of the limited research in alumni philanthropy is focused on the behavior of alumni of large, public and private universities. Only two studies include small public and private institutions. Therefore, these findings cannot be generalized to institutions in the Comprehensive I category.

several different variables.

This study investigates 12 variables that are believed to be correlates of alumni philanthropy. A review of the literature identified them as potential discriminators between alumni donors and nondonors. The selected variables represent personal characteristics (age, gender, marital status, occupation, income, education of parents), academic characteristics (year of graduation, total years of attendance, academic major), attitude (current emotional attachment to the institution), and behavioral characteristics (undergraduate extracurricular activities, postgraduate involvement with the institution).

**Review of Related Research**

**Age**

Of the four studies including age, Blakely (1974), Rockefeller (1986), and Grill (1988) found significance between age and alumni giving whereas McNulty (1977) found no significance. Blakely (1974) surveyed the alumni of Purdue University and found a significant direct relationship between age and alumni giving. The Rockefeller survey (1986) concluded that people between the ages of 35 to 64 give more to charities than do those under 35. Income generally increases with age up to retirement. Grill (1988), at Pennsylvania State University, found the percentage of
donors generally increases linearly with age and a high percentage of givers are in the 45-49 age group. McNulty (1977) found no statistical relevance between age and alumni support at a church-related private institution.

**Gender**

In the seven studies including gender as a variable the results were mixed and contradictory. Bragg (1971) and Blumenfeld and Sartain (1974) found that donors were more likely to be male.

Critz (1980) found observable differences between men and women. Women in general are stingy givers. A study of married couples found that the wife's alma mater received smaller contributions than the husband's alma mater. Women more than men need personal involvement with an organization before they make big gifts. Women give to community organizations in which they are active. Leadership roles on campus influence donations from men and women. Women, however, have not been asked to serve on boards in proportion to the number of women who are alumni.

The Rockefeller Brothers Fund Survey, *The Charitable Behavior of Americans* (1986), reported that men have substantially larger incomes than women but gave only a slightly higher percentage of their income to charity compared to women. This finding is in contrast to the conclusion by Critz (1980) that women in general are stingy
Dietz (1985) found in a study of alumni from 1974 and 1979, that males gave more to athletic programs but in other aspects, the differences in voluntary financial support by gender were not conclusive. He found that divorced females were the most frequent givers, followed by married women and then married men. The never-married women were the least likely to be donors.

Grill (1988) and McNulty (1977) found that there was no significant difference between donors and nondonors with respect to gender.

Marital Status

Marital status was a factor of interest in eight studies. In seven of the eight studies little or no significance was found between marital status and alumni donor nondonor behavior. Bragg (1971), Caruthers (1973), McNulty (1977) and Beeler (1982) found no significant differences between married and unmarried alumni donors and nondonors. In addition, Blumenfeld and Sartain (1974) found no relationship between spouse attendance at the institution and contributions. Gardner (1975) found that an alumnus who met his or her spouse at the institution was only slightly more inclined to become a donor. Grill (1988) found that marital status was not significant enough to discriminate donors and nondonors. In his comparison of college-only
versus university-only donors the married donors were more likely to be low donors than high donors to the college. On the other hand, The Rockefeller Survey (1986) found that married people give more of their incomes to charity than single, divorced, separated, or widowed persons.

**Occupation**

Three studies examined occupation in relation to alumni giving. Two studies found a significance between occupation and donor status while one study indicated there was no significant difference. Bragg (1971) found that alumni in business, industry, and the traditional professions were more likely to make a contribution than other occupations. Beeler (1982) found occupation to be one of the strongest predictors of donor status. He found that donors held jobs requiring greater skills and responsibilities than nondonors. A correlation could be made between income and skill level, thus concluding that higher paying jobs require greater skills. However, Grill (1988) found no significance between employment by occupational area within the field of education and donor status. There could be a relationship between the low income of educators and their donor status.

**Income**

Seven studies reported mixed findings on income in relation to alumni giving. Five studies found modest to
significant relationships between income and alumni giving. One study showed an inverse relationship between income and giving while another study found a significant relationship between income and donor nondonor status. In their national study of 1961, Spaeth and Greely (1970) found a modest positive relationship between current income and giving that was much weaker than the relationship between parental income and giving. Gardner (1975) found only a slight positive relationship between giving and income among alumni of a private, church-related college. Blakely (1974) and Bragg (1971) found a significant direct relationship between income and the amount of the gift, with affluent alumni making larger gifts at two public universities. McNulty (1977) found a significant positive relationship between giving and family income in a private, church-related institution. Richardson (1985) found that as the household income increases, the percentage of donations declines. Grill (1988) found that income was not statistically significant for donor versus nondonor comparison but it was significant for the college high donor versus college low donor comparison.

Parental Education

Two studies reported findings on parental education level and alumni giving. Spaeth and Greeley (1970) found that parental socio-economic status (SES) was one of the
three most important variables related to alumni giving. Parental socioeconomic status is an index based on parental income and the father’s education. The better-educated and more affluent parents were more likely to make a contribution. However, this was not true for public college alumni. Blakely (1974) found no significant relationship between either the educational level of the father or parental social class and giving by Perdue University alumni.

Year of Graduation

The nine studies that examined year of graduation and giving were mixed. Five found inverse relationships between giving and year of graduation, two found more recent graduates likely to give, and two found no significance between giving and year of graduation. McKee (1975), Kelly (1979), Blakely (1974), and Grill (1988) found inverse relationships between giving and year of graduation. The less recent the year of graduation, the more likely the alumni is to give to the institution. Simpson and Hirsch (1968) found a similar negative relationship for the first fifteen years after graduation with no significant or stable relationship over longer periods. On the other hand, Teague (1965) and Beeler (1982) found that the more recent graduates were more likely to make contribution. It is important to note that studies of recent graduates at some
private universities show they are more likely to contribute while at other private institutions there is no relationship between year of graduation and giving. McNulty (1977) found no significance between year of graduation and donation by alumni at Loyola University of Chicago. Bragg (1971) found no significant relationship to giving at Ball State University.

Length of Attendance

The relationship between alumni giving and length of attendance was investigated in six studies. Four studies found significance between length of attendance and alumni giving while two found no significance. In a study of large donors (i.e., $10,000 or more) at the University of Michigan, Morris (1970) found a significant direct relationship between length of attendance, number of degrees earned, and making a donation. Greely and Spaeth (1970) found that attending one institution of higher learning had some effect on giving in later years. Miracle (1977) found a significant direct relationship between the number of degrees received and giving at the University of Georgia. Blumenfeld and Sartain (1974) found that graduation was significant to the prediction of giving. Blakely (1974) and Grill (1988) found no significant relationship between the number of years as an undergraduate and giving.
Academic Major

Six studies have examined the relationship between academic major and alumni giving. Five found a significance between academic major and giving while only one found no significance. Studies at two public institutions indicated that donors were more likely to have applied or occupationally-oriented academic majors. Blumenfeld and Sartain (1974) found that business alumni were more likely to be donors. Caruthers (1973) found business, engineering, and agriculture to be significant predictors of giving at Oklahoma State. McKee (1975) at Indiana State University found that the type of degree earned was significant to alumni support. At the University of Connecticut, Beeler (1972) found that alumni of the School of Arts and Sciences were more likely to be contributors than were alumni of the School of Management. Grill (1988) found statistical significance between academic major and alumni giving at Pennsylvania State University. McNulty (1977) found no significant relationship between major and alumni giving at a private church-related institution. There appears to be a relationship between the type of degree earned, its earning power, and alumni donations to the institutions.

Emotional Attachment to the Institution

Eight researchers found emotional attachment to be a significant discriminator in some degree between donors and
nondonors while one researcher found no significance between emotional attachment and alumni giving. Chambers (1968) found that colleges take on family characteristics of belonging, loyalty, gratitude, and nostalgia that increase over the years. Dunham (1969) reported that only 27% of all alumni were strongly attached to their institutions according to a National Opinion Research Center survey of 1961 graduates. In their multiple-wave national survey Spaeth and Greeley (1970) found that emotional attachment, both current and at the time of graduation, is the strongest factor in alumni giving. In addition, Spaeth and Greeley found a slight, statistically insignificant negative relationship between being critical of the institution and giving. Bragg (1971) and MacIssac (1973) found a significant relationship between alumni giving and current identification with the institution as did McKinney (1978) for large contributors. Gardner (1975) in his study of Harding college noted that emotional attachment was stronger at a private college. Beeler (1982) found emotional attachment to be the strongest of the variables he tested. On the other hand, Grill (1988) found a weak significance for emotional attachment in his donor versus nondonor comparison.

**Participation in Undergraduate Extracurricular Activities**

Eight empirical studies have investigated participation
in extracurricular activities and alumni giving. Six found a significant relationship between undergraduate involvement and alumni contributions while two studies reported no significant relationship. Seymour (1966) suggested that alumni who participated in meaningful extracurricular activities give financially to alma mater more dependably than others. Studies by Blakely (1974), Gardner (1975), Hall (1967), McNulty (1977), and Morris (1970) found significant, positive relationships between undergraduate involvement in student activities and organizations and financial contributions. Deel (1971) found a significance in the role active student involvement plays in graduates' continued affiliation with the alumni association. McNulty (1977) found that those alumni who used college student personnel services tended to become donors. Blumenfeld and Sartain (1974) found no significance between participation in athletics and giving. Blakely (1974) examined specific forms of extracurricular involvement but found no significant relationship with the number of financial gifts. Grill (1988) found no significance in the degree of extracurricular activities between donors and nondonors.

These findings are mixed with suggestions that participation in undergraduate activities at large, public or private institutions and small, church-related private institutions would be a discriminating factor in alumni donor nondonor behavior. This variable was included in this
study in order to investigate Comprehensive I college alumni results.

**Postgraduate Involvement With the Institution**

Eleven studies have examined the relationship between alumni giving and various forms of alumni involvement. All of the studies found a positive relationship between alumni involvement and giving. However, one study found that less frequently involved alumni were more likely to be donors. Hall (1967), Blakely (1974), and Bragg (1971) found a significant positive relationship between the frequency with which alumni returned to campus and financial contributions. On the other hand, Caruthers (1973) concluded that those alumni who returned to campus yearly or less often were more likely to be donors than those who visited more often. Blakely (1974), Bragg (1971), Caruthers (1973), McKee (1975), McNulty (1977), Morris (1970), Simpson and Hirsch (1968), and Grill (1988) found a significant positive relationship between being a member of an alumni organization and giving. In addition, Caruthers (1973), McKee (1975), Morris (1970), and Simpson and Hirsch (1968) reported a significant relationship between the extent of involvement in alumni organizations and activities and financial contributions. Kelly (1979) found that involvement in alumni activities and readership of alumni publications were correlates of alumni giving.
These findings suggest that the degree of alumni involvement with the large, public or private institution can significantly discriminate between alumni donors and nondonors. Therefore, it was considered appropriate to test this variable with the Comprehensive I college alumni.

**Summary of Relevant Research**

The available empirical studies and related research have focused on a large number of variables, however, few of these have spread as common elements across a substantial number of the studies. Furthermore, the institutions mainly represented large, public and private doctorate-granting universities and only two smaller colleges, one public and one private in the mid-size Comprehensive I category. Therefore, it is difficult to determine particular variables, regardless of the reported significance with alumni philanthropy, as established theories of donor behavior.

Of the thirty studies relevant to donor characteristics, the variable included more often was postgraduate involvement with the institution. It appeared in a little more than one-third of these studies and was positively related to alumni giving in each study. Two variables were included in slightly less than one-third of the studies - emotional attachment and year of graduation.
In the nine studies including emotional attachment, eight found a positive relationship while one found no relationship with giving. In the nine studies including year of graduation, two found more recent graduates likely to give, five found the less recent the year of graduation, the more likely the alumni is to give, and two found no relationship between year of graduation and giving. The remaining nine of the twelve variables included in this study appeared in at least two of the twenty-nine studies investigated. Table 1 summarizes the variables included in two or more studies, the frequency of studies in which they are found, and the results.

Eight variables have been consistently reported to be positively related to donor behavior: postgraduate involvement, emotional attachment, participation in undergraduate activities, current income, academic major, length of attendance, age, and occupation. Two variables have been reported to be positively related to donor behavior although not consistently: parental education and gender. Marital status is reported to have no relationship to giving. Year of graduation is reported to have a negative, or inverse relationship to giving.

It is apparent that alumni giving in institutions in the Comprehensive I classification could benefit from further systematic examination. The present study is designed to respond to the principal deficiency in the
current research on Comprehensive I institutions. Specifically, this study tests some of the variables identified in previous research as discriminators or potential discriminators between alumni donors and alumni nondonors. The number was limited to those that would enhance the development of fund raising in Comprehensive I institutions in the judgment of the investigator.

### TABLE 1

Relationships Between Variables Included in Two or More Empirical Studies of Alumni Giving

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number Of Studies</th>
<th>Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postgraduate involvement</td>
<td>11</td>
<td>Positive</td>
</tr>
<tr>
<td>Emotional attachment</td>
<td>9</td>
<td>Positive</td>
</tr>
<tr>
<td>Year of graduation</td>
<td>9</td>
<td>Negative</td>
</tr>
<tr>
<td>Undergraduate participation</td>
<td>8</td>
<td>Positive</td>
</tr>
<tr>
<td>Marital status</td>
<td>8</td>
<td>None</td>
</tr>
<tr>
<td>Current income</td>
<td>7</td>
<td>Positive</td>
</tr>
<tr>
<td>Gender</td>
<td>7</td>
<td>Mixed</td>
</tr>
<tr>
<td>Length of attendance</td>
<td>6</td>
<td>Positive</td>
</tr>
<tr>
<td>Academic major</td>
<td>6</td>
<td>Positive</td>
</tr>
<tr>
<td>Age</td>
<td>4</td>
<td>Positive</td>
</tr>
<tr>
<td>Occupation</td>
<td>3</td>
<td>Positive</td>
</tr>
<tr>
<td>Parental education</td>
<td>2</td>
<td>Mixed</td>
</tr>
</tbody>
</table>
Chapter 3

RESEARCH DESIGN AND PROCEDURES

This chapter describes the research design and procedures used in the study. The sequence of discussion is as follows: the research questions; dependent variables; independent variables; method of gathering data; development and testing of the questionnaire; sampling; data collection; coding and data entry.

Research Questions

The purpose of this study was to address the following central research questions:

1. To what extent do personal characteristics (current age, gender, marital status, occupation, income, and education of parents) differentiate between donors and nondonors?

2. To what extent do academic characteristics (year of graduation, total years of attendance, and department/school of major) differentiate between donors and nondonors?

3. To what extent do attitudinal and behavioral characteristics (emotional attachment to the institution, undergraduate participation in extracurricular activities,
postgraduate involvement with the institution) differentiate between donors and nondonors?

**Dependent Variables**

The dependent variables for this study consisted of alumni groups classified by donor status: donor or nondonor. The donor group included those alumni who had made any financial contribution to Christopher Newport College from 1963 to 1991 (N=1290). Nondonors were alumni who had never made a financial contribution to Christopher Newport College from 1963 to 1991 (N=4243).

**Independent Variables**

The independent variables for this study were selected for their potential discriminating powers based on the review of the literature and on their potential to contribute to more effective marketing and strategic fund-raising efforts within Comprehensive I institutions of higher education. The independent variables were expected to discriminate between donors and nondonors.

The independent variables selected for the study represented either personal characteristics (current age, gender, marital status, occupation, income, and education of parents), academic characteristics (year of graduation,
total years of attendance, and department of major),
attribute (emotional attachment to the institution), or
behavior (undergraduate participation in extracurricular
activities, postgraduate involvement with the institution).
To enhance reliability and validity, multiple measures were
used in gathering data. The operational definitions of the
independent variables are defined below:

1. **Current Age**: Respondent age to the nearest
   birthday. (Question 11, Appendix C)

2. **Gender**: The gender of the respondent (male or
   female). (Question 10, Appendix C)

3. **Marital Status**: The current marital status of the
   respondent (Never married, married, separated, divorced,
   widowed). (Question 12, Appendix C)

4. **Occupation**: The current area of employment of the
   respondent (Clerical, homemaker, managerial, professional,
   sales, other). (Question 13, Appendix C)

5. **Household income**: The range representing the total
   household income for the past year, including only the
   respondent and spouse, if applicable. (Question 14, Appendix
   C)

6. **Education of parents**: The attainment of a
   baccalaureate degree by the respondent's mother and/or
   father (yes or no). (Question 15, Appendix C)

7. **Year of graduation**: The year the respondent
   graduated from Christopher Newport College. (Question 18,
Appendix C)

8. **Total years of attendance:** Two measures of college attendance were used:  1) The length of time, to the nearest half year, spent as a part-time or full-time student at Christopher Newport College;  2) Other degrees earned. (Questions 17 and 19, Appendix C)

9. **Academic Major:** Respondents were asked to write in their major. Majors were coded for data entry as discrete numbers from 1 to 22. (Question 20, Appendix C)

10. **Current emotional attachment to the institution:**  1) Current feelings toward Christopher Newport College;  2) Current degree of identification with Christopher Newport College;  3) Value of the education received in preparation for a satisfying and meaningful life;  4) Motivation to make a contribution;  5) Reason for not making a contribution;  6) Rating of areas deserving of financial support; and  7) Attendance of family members at Christopher Newport College. (Questions 2, 3, 4, 7, 8, 9, and 16, Appendix C)

11. **Participation in extracurricular activities:** The number of activities in which the respondent participated in while a student. (Question 1, Appendix C)

12. **Postgraduate involvement with the institution:** Two measures of alumni involvement were used: number of planned visits to campus since graduation, and number of off-campus alumni activities engaged in since graduation. (Question 5, Appendix C)
Due to the large population to be tested (N= 5533), the considerations of time and cost indicated the mail questionnaire to be a practical method of gathering data for this study (Dillman, 1978; McKenna, 1983).

One inherent problem in mail questionnaires was the possibility of a low response (less than 50 percent) which could diminish the reliability and validity of the study because of possible differences between respondents and nonrespondents (Borg & Gall, 1989). Techniques designed to encourage responses were employed and are described in the following paragraphs.

The single most important factor in determining the percentage of responses is the letter of transmittal (Borg & Gall, 1989). The letter appealed to the respondents' ego rather than altruistic nature (Dillman, 1978). Confidentiality was assured due to the inclusion of possibly sensitive questions (Borg & Gall, 1989). High quality paper stock was also used.

The significance of the study and the relationship with the respondent can increase responses according to Borg & Gall (1989). Therefore, the President of Christopher Newport College personally signed each cover letter printed on presidential letterhead. The appeal to the respondents stressed the evaluation of programs and improvement of
quality education, an appropriate request from the President. A copy of the cover letter can be found in Appendix B.

The relationship with the respondent was also encouraged by the inclusion of a pencil imprinted with the Christopher Newport College logo. It was expected that the pencil would help establish a sense of loyalty to the study (Borg & Gall, 1989; Dillman, 1978).

Another technique employed to encourage response rate was the use of first-class mail. In addition, hand-stamped envelopes were used instead of post-permit envelopes, as recommended by Borg & Gall (1989).

The composition, neatness, and length of the questionnaire were carefully structured in order to encourage response (Borg & Gall, 1989; Dillman, 1978). A copy of the questionnaire can be found in Appendix C.

**Developing and Pilot-testing the Questionnaire**

Most of the questions used in the questionnaire were derived from instruments tested and used in previous research on characteristics of donors and nondonors (Grill, 1988; Beeler, 1982; Keller, 1982; Gardner, 1975). Other questions were revised using principles outlined in Borg & Gall (1989) to enhance motivation to respond and clarity. Questions were discussed initially with the Development
Office staff at Christopher Newport College. Ease in data entry and analysis were dominant influences on question formats, where possible. A pilot test was necessary to further clarify questions and locate ambiguities.

An early draft of the questionnaire was discussed with a class of approximately 25 graduate students enrolled in Education 663, a course focusing on experimental and descriptive research. The primary objective was to determine the clarity of the instructions, wording and formats of questions in the instrument. The class discussed each question with a focus on the following: Were the respondents likely to get the same meaning from the questions that the investigator intended? Were any questions confusing, irrelevant, insensitive, or trivial? As a result of this activity, some minor wording changes were made and one question was deleted due to the sensitive content.

The revised version of the instrument was sent to a random sample (N=200) of the 1876 alumni of Christopher Newport College from 1987, 1988, 1989 and 1990. This group was representative of the alumni that would be asked to complete the questionnaire. The results indicated that some questions needed to be revised in content and restructured for ease in data entry. The last revision of the instrument was administered to the Board of the Alumni Society (N=6) at a monthly meeting. This group completed the questionnaire.
and made written suggestions on the instrument. A final meeting of some administrators and the Development Office staff at Christopher Newport College culminated the revision of the instrument.

**Sampling**

The size of the population in this study (N=5533) made it impractical to survey the entire population. It was decided to use a simple random sample because it is less expensive and faster than a survey of the entire population. A random sample allowed the researcher to reach conclusions about the entire population that were correct within a small margin of error (Borg & Gall, 1989).

The population was divided into two sample groups: donor and nondonor. Consideration was given to the balance of sample sizes and power.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Required Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donor</td>
<td>1290</td>
<td>150</td>
</tr>
<tr>
<td>Nondonor</td>
<td>4243</td>
<td>150</td>
</tr>
</tbody>
</table>

**Data Collection**

On September 23, 1991, the questionnaire was mailed to 300 alumni in the random sample. The mailing included a
cover letter (Appendix B), a token incentive, the questionnaire (Appendix C), and a stamped, addressed return envelope.

Within three weeks of the initial mailing, 129 questionnaires (43 percent) had been returned. The code numbers on the returned questionnaires were used to delete names of respondents from the master mailing list. Responses were recorded daily.

On October 18, 1991, four weeks after the initial mailing, a follow-up letter and a replacement questionnaire were sent to the 171 nonrespondents (Appendix D). By November 1, 1991, another 27 questionnaires were received for a total of 166. The overall response rate at this point was 55 percent. The response varied by group: donor response was 67 percent and nondonor response was 44 percent. The low nondonor response rate was anticipated, and telephone contacts for nonrespondents began on November 6, 1991 and continued through November 7, 1991. The investigator attempted 134 telephone contacts with nonrespondents. Contact was made with 45 nonrespondents, all of whom agreed to complete and return the questionnaire if another instrument was mailed.

The third mailing contained a letter signed by the investigator, a questionnaire, and a stamped envelope (Appendix E) addressed to those nonrespondents who had agreed to complete the questionnaire by phone. Of the
nonrespondents contacted by phone, 25 (55 percent) responded.

Ultimately, 220 questionnaires were returned for an overall response of 72 percent. Additionally, 11 questionnaires were returned with the identifying number removed and 3 were undeliverable. By group the responses entered into the data base were as follows:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Donors</td>
<td>120 (55%)</td>
</tr>
<tr>
<td>Nondonors</td>
<td>98 (45%)</td>
</tr>
<tr>
<td>Total responses</td>
<td>220</td>
</tr>
</tbody>
</table>

**Coding and Data Entry**

Coding instructions were developed for appropriate input, tabulation, and analysis of responses to the survey. As responses to the survey were received, coding was completed and information was stored for subsequent analysis.

Data entry started on October 11, 1991 and continued until December 16, 1992. A total of 220 responses were entered into the data base.

**Analysis of Data**

The Statistical Analysis System (SAS) Package was used to apply a two-group (simple) discriminant function analysis to the data. The objective of discriminant analysis is to
distinguish between groups by comparing them on selected independent variables, taking into consideration the interrelationships and power of combined variables. In performing discriminant analysis, the stepwise selection procedure weights and linearly combines the discriminating variables in a way that forces an optimal distinction between groups (Klecka, 1984).

The stepwise selection procedure enters variables sequentially into the discriminant function according to their discriminating power. The stepwise selection process begins by choosing the single variable which provides the greatest univariate discrimination. The variable is then paired with each of the other variables, one at a time, to locate the combination that produces the greatest discrimination. This variable is then paired with each of the other variables, one at a time, to locate the combination that produces the greatest discrimination. The variable which contributes to the best pair is selected as the second variable to enter the discriminant function. These two variables are then combined with each of the remaining variables, one at a time, to form triplets which are evaluated to determine the third variable to be selected. This procedure continues until all variables are selected or to the point where no additional combination of variables provides a minimum level of improvement. It is important to note that as variables are sequentially
selected for inclusion, some variables previously selected may lose some of their relative discriminating power. This occurs because some of the information they contain about group differences is more available in some other combination of variables (Klecka, 1984).

The classification step is a separate and distinct function of discriminant analysis through which the values associated with the discriminating variables are used to classify and predict the group to which a case most likely belongs (Klecka, 1984). A significance level of .05 was selected for the analysis.

A variable must be measurable at the interval level in order to enter discriminant analysis, thus allowing the means and variances to be incorporated into the mathematical equation (Klecka, 1984). The independent variables identified as potential discriminators earlier in this chapter were available for entry into the discriminant function for stepwise selection. The variables "academic major" and "occupation" were categorical properties and could not be measured at the interval level. Therefore, these two variables could not be entered into the discriminate equation.

The variable "family members" was changed to a simple dichotomy indicating whether or not a family member had attended CNC (0=no; 1=yes). The variable "marital status" was also changed to a simple dichotomy of never married or
married (1=never married; 2=married).
The variable "areas deserving of financial support" was restructured so that "no opinion" would be rated 2.5 instead of 1, therefore removing the possibility of considering it less significant than "not deserving".

More detailed descriptions of the statistical techniques used in the study are contained in chapter 4.
Chapter 4

RESULTS OF STATISTICAL TESTS

This chapter reports the results of the discriminant analysis procedures which were applied to independent variables for the primary groups of interest: donor versus nondonor. The first section of this chapter reports the descriptive statistics. The second section reports results of the discriminant analysis.

Description of the Sample

The overall sample of 300 cases represents 5 percent of the total alumni population. The description of the sample includes personal characteristics (current age, gender, marital status, occupation, income, and education of parents), academic characteristics (year of graduation, total years of attendance, and department of major), attitude (emotional attachment to the institution), or behavior (undergraduate participation in extracurricular activities and postgraduate involvement with the institution). The complete list of measures used to obtain the data for these variables is included in Chapter 3.
Personal Characteristics

Descriptive personal characteristics include current age, gender, marital status, occupation, income, and education of parents. The age range of the alumni respondents in the overall sample was from 23 to 65. The mean age of donors was 40 and the mean age of nondonors was 36 with an overall mean age of 38. Figure 1a shows the results of the data analysis on ages 23-42. Figure 1b shows the results of the data analysis on ages 43-65.

![Ages 23 - 42](image_url)
Gender comparisons in the sample included 111 females (52%) and 101 males (48%). Figure 2 shows the results of the data analysis on gender. The donor alumni contained 66% males and 48% females. The nondonor group contained 34% males and 58% females.
Eighty percent of the sample cases were married and 20 percent were not married, including separated, divorced, and widowed respondents. Of the married respondents, 59 percent were donors and 41 percent were nondonors. There were more donors in the married category than in any other category. Figure 3 shows the results of the data analysis for marital status.
Respondents were asked to indicate their current occupation from the following categories: clerical, homemaker, managerial, professional, sales, and other. The percentage of donors in each occupation category was as follows: 86% indicated sales occupations, 67% indicated clerical, 62% indicated other, 60% indicated managerial, 50% indicated professional, and 57% indicated homemaker. The frequency distribution by category for the nondonor response was as follows: 56 indicated professional, 17 indicated managerial, 11 indicated other, 6 indicated homemaker, 1
indicated sales, and 2 indicated clerical. The results of the data analysis for occupation is shown in Figure 4.

**Figure 4**

![Occupations](image)

Figure 5 presents the household income range for respondents and spouse, as applicable. Data analysis of the seven brackets of household income produced a donor median income in the range of $44,999 - $64,999 and a non-donor median income in the range of $35,999 - $44,999. Sixty-eight percent (68%) of the $35,000 to $45,000 bracket were donors and 64% of the $45,000 to $65,000 bracket were donors. The category to $99,000 had 71% donors and the
$100,000 and over bracket rated 73% donors, the largest percentage of donors.

Figure 5

Thirty-six percent of the alumni respondents' parents held baccalaureate degrees. Slightly more donors (20%) than nondonors (17%) had parents with baccalaureate degrees. Figure 6 shows the results of the data analysis on parents' baccalaureate degree. Note the high frequency of respondents whose parents did not hold baccalaureate degrees.
Academic Characteristics

Academic characteristics include year of graduation, total years of attendance, and department of major. The sample included graduates from the years 1963 through 1991. The mean class year of graduation for the sample was 1982. The mean year of graduation for the donors was 1981 and the mean year of graduation for the nondonors was 1983. The mean comparisons of age and year of graduation for donors and nondonors is shown in Figure 7.
The data analysis on the sample for total years of attendance reported a non-donor mean of 4.0 and a donor mean of 4.47.

Results of the data analysis on the undergraduate major reported 17 academic disciplines. Figure 8a shows the results of the data analysis on economics and finance, computers, mathematics, philosophy and religion, physical education, modern language, arts and nursing. Figure 8b shows the results of the data analysis on marketing, psychology, accounting, political science, biology,
education, social work, English, and history. Data indicated the top four highest frequencies for donors were in the following departments: management and marketing, psychology, accounting, and political science. The highest percentages of donors within a discipline came from the following departments: History (80%), economics and finance (75%), math (75%), marketing and management (67%) and modern language (67%). The physical education and nursing departments had no donors.

Undergraduate Major

![Undergraduate Major Chart]

<table>
<thead>
<tr>
<th>Major</th>
<th>Donors</th>
<th>Nondonors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>61</td>
<td>21</td>
</tr>
<tr>
<td>Marketing</td>
<td>41</td>
<td>11</td>
</tr>
<tr>
<td>Psych</td>
<td>52</td>
<td>16</td>
</tr>
<tr>
<td>Accounting</td>
<td>56</td>
<td>16</td>
</tr>
<tr>
<td>Politics</td>
<td>50</td>
<td>15</td>
</tr>
<tr>
<td>Biology</td>
<td>54</td>
<td>15</td>
</tr>
<tr>
<td>English</td>
<td>46</td>
<td>13</td>
</tr>
<tr>
<td>History</td>
<td>54</td>
<td>11</td>
</tr>
<tr>
<td>Sociology</td>
<td>36</td>
<td>11</td>
</tr>
<tr>
<td>History</td>
<td>46</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>61</td>
<td>21</td>
</tr>
</tbody>
</table>

Figure 8a
The results of the data analysis on graduate degrees indicated 54 alumni in the sample held the master's degree, 7 alumni held a doctorate, and 11 alumni held graduate degrees other than the master's and the doctorate. These degrees represented 16 disciplines. Donor alumni held 4 doctorates: 2 in law, 1 in psychology, and 1 in management and marketing. The percentage of donors for each discipline were as follows: Marketing (100%), law (67%), and psychology (33%). Nondonor alumni held 3 doctorates; 1 in law, and 2 in psychology. Donor alumni held 27 master's
degrees and nondonor alumni held 27 master's degrees.

Eleven alumni respondents in the sample held degrees other than the master's and the doctorate. Alumni donors held 5 degrees in 4 different disciplines: Biology, management and marketing, nursing, and psychology. The percentage of donors in the 4 disciplines was 100%. The nondonor alumni held 6 degrees in 5 disciplines; Modern language, computer science, social work, medical technology, and dentistry. Figures 9a, 9b, and 9c show the results of the data analysis on all graduate degrees: Master's, Doctorate, and other degrees. Figure 9a shows the results of the data analysis on graduate degrees in marketing, arts, education, social work, psychology, computers, and political science. Figure 9b shows the results of the data analysis on graduate degrees in law, nursing, economics, engineering, English, and accounting. Management and marketing produced the greatest frequency of donors, followed by education and psychology. Four disciplines with low frequencies produced 100% donors: Political science, engineering, English, and accounting. Two disciplines at the undergraduate level produced no donors; Physical Education and nursing, while at the graduate level, 8 disciplines produced no donors; math, economics, physical education, dentistry, medical technology, modern language, nursing, and social work.
Figure 9a

Graduate Degree

<table>
<thead>
<tr>
<th>Field</th>
<th>Donors</th>
<th>% Donors</th>
<th>Nondonors</th>
<th>% Nondonors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing</td>
<td>16</td>
<td>78</td>
<td>4</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>Arts</td>
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<td>11</td>
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<td>Edu</td>
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<td>6</td>
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<tr>
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<td>Computer</td>
<td>2</td>
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<tr>
<td>Politics</td>
<td>2</td>
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<td>2</td>
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<td>4</td>
</tr>
</tbody>
</table>

Figure 9b

Graduate Degree

<table>
<thead>
<tr>
<th>Field</th>
<th>Donors</th>
<th>% Donors</th>
<th>Nondonors</th>
<th>% Nondonors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law</td>
<td>3</td>
<td>60</td>
<td>3</td>
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<td>6</td>
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<tr>
<td>Nursing</td>
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<td>2</td>
<td>2</td>
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<tr>
<td>Econ</td>
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<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Engr</td>
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<td>1</td>
<td>1</td>
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<td>2</td>
</tr>
<tr>
<td>English</td>
<td>100</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Actting</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
Attitude

The data for the variable attitude, or emotional attachment to the institution, was gathered by several measures: Current feelings toward CNC, current degree of identification with CNC, value of the education received in preparation for a satisfying and meaningful life, motivation to make a contribution, reason for not making a contribution, rating of areas deserving of financial support, and attendance of family members at CNC.

The first measure of attitude was current feelings toward CNC. The results of the data analysis on current feelings for the sample is found in Figure 10. Both donor
and nonдонор respondents indicated high frequencies of very positive or positive feelings toward CNC. Twice as many donor alumni indicated very positive feelings than did nonдонор alumni. In the very positive category, 68% of the responses were donors. In the positive category 56% of the responses were donors. The frequencies of donor alumni (64) and nonдонор alumni (50) in the positive category were similar. There were no negative or very negative feelings indicated by the donor alumni. The nonдонор alumni indicated both negative and very negative feelings.

![Current Feelings](image)

**Figure 10**

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The second measure of attitude was current degree of identification. Figure 11 shows the results of the data analysis on current degree of identification with CNC. Of the total responses in each category, 82% of the donor alumni indicated very strong identification, 73% indicated strong identification with CNC, 59% indicated a moderate degree of identification, 46% indicated a weak degree of identification, and 37% indicated no feelings. Nondonor alumni had higher frequencies of responses in the moderate and weak categories.
The third measure of attitude was value of the education received in preparation for a satisfying and meaningful life. The results of the data analysis on the value of the education received in preparation for a satisfying and meaningful life by the donor and nondonor respondents is shown in figure 12. The donor responses in each category were as follows: 62% felt the education was very valuable, 56% felt it was valuable, and 47% felt it was somewhat valuable. High frequencies of nondonor alumni also felt the value of the education was valuable or very valuable. The mean response was 4.0 for nondonor alumni and 4.1 for donor alumni.

![Value of Education](image)

**Figure 12**

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The fourth measure of attitude was motivation to make a contribution. The results of the data analysis of donor motivation to make a contribution is shown in Figure 13. Sample donor alumni (n=120) were given 6 categories from which to choose: loyalty to the college, belief in the need to support public higher education, quality of the college, tax deductibility of the gifts, to "repay" financial assistance received as a student, and other. Of the donor respondents, 87 (73%) indicated loyalty as a motivation, 56 (47%) indicated the belief in the need to support public education, 49 (41%) indicated quality of the college, 31 (26%) indicated tax deductibility, 9 (8%) indicated other, and 4 (3%) indicated "repay" financial assistance.

![Donor Motivation](image)

Figure 13

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The fifth measure of attitude was reason for not making a contribution. The results of the data analysis of the data for nondonor motivation are shown in Figure 14. The 93 nondonor respondents chose responses from 5 categories: cannot afford it, don't think a public college needs private support, other charitable causes are more deserving, and have not been asked. Other charitable causes had the largest percentage of response (40%), followed by cannot afford it (36%), other reasons (14%), not deserving (5%), and not been asked (5%).
The sixth measure of attitude was rating of areas deserving of financial support. The categories were obtained from the Vice President for Development at CNC. The 9 areas deserving of financial support were as follows: Library, Scholarships, Research, Equipment, Major Department, Professorships, Alumni Society, Sports, and Unrestricted. Please see Appendix C, question 9 for a complete list of the rating scale. The highest donor means were library, scholarships, and instructional equipment. The highest nondonor means were scholarships, library, and research.

The results of the data analysis on designation of funds to the library is shown in Figure 15. The percentage of donor responses by category was as follows: 68% rated the library as very deserving, 53% rated the library as deserving, 24% had no opinion, and 1 respondent indicated the library was not deserving. The percentage of nondonor response by category was as follows: 32% rated the library as very deserving, 47% rate the library as deserving, 76% had no opinion, and 1 respondent rated the library as not deserving. Both donors and nondonors had high frequencies of very deserving or deserving for the library designation of funds.
The results of the data analysis of designation of funds to scholarships is found in Figure 16. The percentage of donor response by category was as follows: 61% rate scholarships as very deserving, 60% rated scholarships as deserving, 39% had no opinion, and 50% rated scholarships as not deserving. The frequency distribution of nondonor response by category was as follows: 35 rated scholarships as very deserving, 34 rated scholarships as deserving, 16 had no opinion, and 3 rated scholarships as not deserving.
The results of the data analysis on designation of funds to research is found in Figure 17. The percentage of donor response by category was as follows: 66% of the donors rated research as very deserving, 60% rated research as deserving, 68% had no opinion, and 58% rated research as not deserving. The frequency distribution for the nondonor responses was as follows: 6 nondonors rated research as very deserving, 16 rated research as deserving, 41 had no opinion, and 27 rated research as not deserving.
The results of the data analysis on designation of funds to instructional equipment is found in Figure 18. The percentage of donor response by category was as follows: 62% of the donors rated instructional equipment as very deserving, 63% rated instructional equipment as deserving, 27% had no opinion, and 71% of the not deserving respondents were donors. High frequencies of nondonors rated instructional equipment as deserving (38) or very deserving (24).
The results of the data analysis on designation of funds to the department of major is shown in Figure 19. The percentage of donor response by category was as follows: 63% rated the department of major as very deserving, 62% rated the department as deserving, 42% had no opinion, and 25% rated the department as not deserving. The nondonor frequency distribution for the categories were as follows: 34 rated the department as deserving, 26 had no opinion, 20 rated the department as very deserving and 3 rated the department as not deserving.
The results of the data analysis on designation of funds to professorships is shown in Figure 20. The percentage of donor response by category was as follows: 59% of the donors rated professorships as very deserving, 64% rated professorships as deserving, 43% had no opinion, and 46% rated professorships as not deserving. The nondonor frequency distribution by category was as follows: 17 rated professorships as very deserving, 34 rated professorships as deserving, 23 had no opinion, and 14 rated professorships as not deserving.
The results of the data analysis for designation of funds to the alumni society is shown in Figure 21. The percentage of donor responses by category was as follows: 43% rated the alumni society as very deserving, 62% rated the alumni society as deserving, 69% had no opinion, and 80% rated the alumni society as not deserving. The frequency distribution for the nondonor alumni was as follows: 20 rated the alumni society as very deserving, 26 rated the alumni society as deserving, 37 had no opinion, and 5 rated the alumni society as not deserving.
The results of the data analysis for designation of funds to sports is shown in Figure 22. The percentage of donor response in each category was as follows: 69% rated sports as very deserving, 58% rated sports as deserving, 49% had no opinion, and 63% rated sports as not deserving. The nondonor frequencies for each category was as follows: 4 rated sports as very deserving, 37 rated sports as donor alumni and designation of funds to sports is as follows: deserving (50), no opinion (30), not deserving (25), and very deserving (9). The nondonor frequencies for sports are
similar to the donor frequencies: deserving (37), no opinion (31), not deserving (15), and very deserving (4). Figure 23 shows the frequency distribution for designation of funds to sports.

![Sports Frequency Distribution](image)

Figure 22

The results of the data analysis on designation of unrestricted gifts is shown in Figure 23. The percentage of donor response in each category was as follows: 85% rated unrestricted as very deserving, 71% rated unrestricted as deserving, 45% had no opinion, and 65% rated unrestricted as not deserving. The frequency distribution for nondonor
alumni in each category was as follows: 2 rated unrestricted as very deserving, 11 rated unrestricted as deserving, 52 had no opinion, and 14 rated unrestricted as not deserving.

<table>
<thead>
<tr>
<th></th>
<th>Donors</th>
<th>Nondonors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Deserving</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Deserving</td>
<td>27</td>
<td>11</td>
</tr>
<tr>
<td>No Opinion</td>
<td>42</td>
<td>62</td>
</tr>
<tr>
<td>Not Deserving</td>
<td>26</td>
<td>40</td>
</tr>
</tbody>
</table>

The attendance of family members at CNC is the final measure of attitude investigated in this survey. For a complete listing of the 7 categories for family members, see Appendix C, question 16. The results of the data analysis showed that the categories of grandparent and grandchild were not represented in the sample, therefore they were
omitted in the analysis. Figure 24 shows the data analysis results for this measure of emotional attachment. Of the total respondents in each category, 76% of the donor alumni had a child who attended, 69% had a spouse who attended, 63% had a sibling who attended, 50% had a parent who attended, and 48% had no family member attend. Donors and nondonors had more siblings and children that attended than parents or spouses.

![Family Attend CNC](image)

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>Sibling</th>
<th>Child</th>
<th>Spouse</th>
<th>Parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donors</td>
<td>57</td>
<td>32</td>
<td>16</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>% Donors</td>
<td>48</td>
<td>63</td>
<td>76</td>
<td>69</td>
<td>50</td>
</tr>
<tr>
<td>Nondonors</td>
<td>61</td>
<td>19</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>118</td>
<td>51</td>
<td>21</td>
<td>13</td>
<td>10</td>
</tr>
</tbody>
</table>

Figure 24
**Behavior**

The independent variable behavior was measured using responses to questions on undergraduate participation in undergraduate extracurricular activities and postgraduate involvement with the institution.

The results of the data analysis on participation in undergraduate extracurricular activities is shown in Figure 25. All respondents indicated the number of activities in which they participated as an undergraduate. The percentages of donor alumni represented in each category were as follows: 57% participated in no activities, 58% in 2 activities, 53% in 1 activity, 44% in 3 activities, 67% in 5 activities, and 50% in 4 activities. Nondonors participated in as many as 6 activities. The mean for donor participation in activities was 1.76 and the mean for nondonor participation was 1.41.

Postgraduate involvement with the institution was measured by responses to two questions: number of planned visits to campus since graduation, and number of off-campus alumni activities engaged in since graduation. Planned visits were defined as class reunions, or events classified as special or sports; and off-campus activities were defined as alumni meetings, phonathons, volunteer work, etc. Figure 26 shows the results of the data analysis of planned campus visits. The donor mean for planned visits was 2.89 and the nondonor mean was 1.01. The highest percentages of donor...
Undergraduate Extracurricular Activities

![Bar chart showing the number of activities participated in by donors and non-donors.]

<table>
<thead>
<tr>
<th>Number of Activities</th>
<th>Donors</th>
<th>Nondonors</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>48</td>
<td>36</td>
</tr>
<tr>
<td>1</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>2</td>
<td>26</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>3</td>
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<td>6</td>
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<tr>
<td>7</td>
<td>0</td>
<td>0</td>
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<tr>
<td>8</td>
<td>1</td>
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</tr>
<tr>
<td>9</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Donor Mean: 1.76  
Nondonor Mean: 1.41

Figure 25

Planned Campus Visits

![Bar chart showing the number of campus visits planned by donors and non-donors.]

<table>
<thead>
<tr>
<th>Number of Visits</th>
<th>Donors</th>
<th>Nondonors</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
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<td>68</td>
</tr>
<tr>
<td>1</td>
<td>18</td>
<td>88</td>
</tr>
<tr>
<td>2</td>
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<td>3</td>
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<td>72</td>
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<td>100</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>200</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Donor Mean: 2.69  
Nondonor Mean: 1.01

Figure 26

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responses in each category were as follows: 43% made no planned visits, 68% made 1 visit, 70% made 2 visits, 72% made 3 visits and 95% made 10 or more visits. The highest frequencies for donors were no visits, followed by 10, 3, 1, and 2 visits. Donor participation concentrated in the 1 to 3 or 10 or more range.

Figure 27 shows the results of the data analysis for off-campus activities. The donor mean for off-campus activities was 0.87 and the nondonor mean was 0.50. The
majority of respondents attended no off-campus activities. The percentage of donor responses in each category were as follows: 53% indicated participation in no activities, 77% participated in 1 activity, 67% participated in 2 activities, 67% participated in 3 activities, 80% participated in 5 activities, and 57% participated in 10 or more activities.

Discriminant Analysis: Donor versus Nondonor

The Statistical Analysis System Package (SAS) was used to apply a two-group (simple) discriminant function analysis to the data. SAS generated measures of group differences and a classification procedure that predicted group membership of all cases in the sample. The F statistic was used to indicate whether sample means differed significantly from one another. A significance level of .05 was selected for entry of variables into the discriminant function.

The independent variables identified as potential discriminators in Chapter III were available for entry into the discriminant function for stepwise selection.

Discussion of Entries into the Analysis

The first step in discriminant analysis is to select cases to be included in the computations. Discriminant analysis requires that complete data is available for each case to be analyzed. Cases missing a response for any of
the variables in the set to be analyzed cannot be entered into the discriminant function. This is important because all respondents did not answer all of the items in the questionnaire. The number of cases examined through discriminant analysis was reduced by the degree of nonresponse for any of the variables in the set. Such nonresponse did not affect the variables in this study. Item nonresponse appeared to be random. The remaining number of cases remained large enough to satisfy the sample size requirements for valid statistical analysis.

Of the 220 cases processed, 196 were used in the analysis. The donor group had 110 cases entered and the nondonor group had 86 cases entered into the discriminant function.

As shown in Table 2, six discriminating variables were selected for inclusion into the discriminant function: planned campus visits; total household income; library as most deserving of financial support; year of graduation; identification with CNC; and attendance of family members at CNC.
Table 2
Stepwise Selection: Summary Table

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable Entered</th>
<th>Number Entered</th>
<th>Partial R**2</th>
<th>F Statistic</th>
<th>Prob F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Planned Visits</td>
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<td>16.808</td>
<td>0.0001</td>
</tr>
<tr>
<td>2</td>
<td>Household Income</td>
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<td>10.452</td>
<td>0.0015</td>
</tr>
<tr>
<td>3</td>
<td>Library Funding</td>
<td>3</td>
<td>0.0406</td>
<td>6.644</td>
<td>0.0109</td>
</tr>
<tr>
<td>4</td>
<td>Graduation Year</td>
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<td>0.0140</td>
</tr>
<tr>
<td>5</td>
<td>Identification</td>
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<td>0.0452</td>
<td>7.346</td>
<td>0.0075</td>
</tr>
<tr>
<td></td>
<td>With CNC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Family Member</td>
<td>6</td>
<td>0.0253</td>
<td>3.991</td>
<td>0.0475</td>
</tr>
<tr>
<td></td>
<td>Attendance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant at the .05 level

Classification Step

A test of effectiveness of the selected discriminating variables is the classification step. In this step, group membership of the cases used in the discriminant analysis is predicted. The effectiveness of the procedure is indicated by the percent of cases correctly classified.

As shown in Table 3, 75 percent of the cases used in the analysis were correctly classified by group. The program was highly effective in predicting the classification of donors, as 81.82 percent of the actual donor cases were correctly classified. The program correctly classified 66.28 percent of the nondonors.
### Classification Results: Donor Versus Nondonor

Percent of cases correctly classified = 75.0

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>Predicted group membership</th>
<th>Percent Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Donor</td>
<td>Nondonor</td>
</tr>
<tr>
<td>Donor (N= 110)</td>
<td>90</td>
<td>20</td>
</tr>
<tr>
<td>Nondonor (N= 86)</td>
<td>29</td>
<td>57</td>
</tr>
</tbody>
</table>

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Chapter 5
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes and interprets the data in chapter IV, draws conclusions, and recommends directions for further study. The first section of this chapter reviews the purpose of the study and the variables selected for the analysis. The second section presents the results of the statistical analysis and examination of the research questions. The third section reviews each variable in terms of similarities and differences between groups and compares the findings in this study to previous research. The fourth section discusses the conclusions drawn from this study and the final section makes recommendations for further study.

Purpose of the Study and Selection of Variables

The purpose of this study was to determine to what extent an analysis of selected personal, academic, behavioral, and attitudinal variables can discriminate between donors and nondonors in a Comprehensive I institution. The alumni were classified as donors or nondonors for comparative purposes.

The variables used in the comparisons were chosen for their potential discriminating abilities in studies of alumni philanthropy as revealed by previous research and on
their potential to contribute to more effective marketing and strategic fund-raising efforts within Comprehensive I institutions of higher education.

Twelve variables were selected to explore the central research question: To what extent an analysis of selected personal, academic, behavioral, and attitudinal variables can discriminate between donors and nondonors in a Comprehensive I institution? The variables selected for the study represented either personal characteristics (age; gender; marital status; occupation; income; and education of parents), academic characteristics (year of graduation; total years of attendance; and department of major), attitude (emotional attachment to the institution), or behavioral characteristics (undergraduate participation in extracurricular activities and postgraduate involvement with the institution). Multiple measures of subjective variables were used in the study to enhance reliability and validity. These multiple measures were treated as independent variables in the statistical tests and analyses. The variables are operationally defined in chapter III.

Results of Testing the Research Questions

The research questions tested were: (1) To what extent do personal characteristics (current age, gender, marital status, occupation, income, and education of parents)
differentiate between donors and nondonors? (2) To what extent do academic characteristics (year of graduation, total years of attendance, and department/school of major) differentiate between donors and nondonors? (3) To what extent do attitudinal and behavioral characteristics (emotional attachment to the institution, undergraduate participation in extracurricular activities, postgraduate involvement with the institution) differentiate between donors and nondonors?

Six of the 12 selected variables were shown to have discriminating powers and showed significant differences between the donor and nondonor groups: Planned campus visits; household income; designation of funds to the library; year of graduation; identification with CNC; and family attendance at CNC. Three of these variables, designation of funds to the library, identification with CNC, and family attendance at CNC, were measures of the independent variable emotional attachment. These multiple measures were treated as independent variables in the statistical tests.

The prediction criteria values correctly classified 75% of the cases in the analysis using the SAS Statistical Package. The SAS Package was effective in predicting donors since 82% of the cases were correctly predicted. The SAS Package correctly predicted 66% of the nondonors.
Discussion of Findings for the Independent Variables

Findings of each of the independent variables are discussed in this section. Included in the discussions are the ability of each variable to discriminate between groups, the relationship of the findings to previous research, and the potential usefulness of the independent variable in the development of marketing strategies.

It is noted that the discriminant analysis technique provides values showing the power and importance of each variable, however, the way in which they combine is not clear. As a result, interrelationships can only be speculative.

Age

This variable did not enter the discriminant function for the donor versus non-donor group, indicating that there were no significant differences with respect to age in this group comparison. This finding is not consistent with the three previous studies that show a direct relationship between age and alumni giving. However, the median age of the donor group (40) coincides with the Rockefeller survey (1986) conclusion that people between the ages of 35 to 64 give more to charities than do those under 35.
The consideration of age in the development of fundraising strategies would be useful due to the findings of three previous studies. It is also important to note the possible effects of changing economic conditions and tax legislation on the philanthropic behavior of alumni.

**Gender**

Gender did not enter the discriminant function for the donor versus nondonor comparison indicating that there were no significant differences with respect to gender in this group comparison. This finding is not consistent with three studies that show males as being more likely to be donors than females; however, it does reinforce two studies that found no significant difference between donors and nondonors with respect to gender. The question remains whether gender influences the amount of the gift. Further research into this aspect of alumni philanthropy is necessary.

The consideration of gender has some utility in the development of marketing strategies for the population examined even though it did not prove to be a significant discriminating variable. The sample included 111 females (52%) and 101 males (48%). The results of the data analysis showed the majority of the donor group was male (66%) as compared to female (48%).
Marital Status

Marital status did not enter the discriminant function for the donor versus non-donor group, indicating that there were no significant differences with respect to marital status in this group comparison. This finding is consistent with seven previous studies that found little or no significance between marital status and alumni donor non-donor behavior. The results of the statistical analysis showed that 67% of the donor group in this survey were married. This finding agrees with the Rockefeller Survey (1986) conclusion that married people give more of their income to charity.

Even though marital status did not enter the discriminant function, consideration of marital status should be included in any fund-raising strategy for the population surveyed. Eighty percent of the sample cases were married. Of the respondents in the married category, 59% were donors.

Occupation

Occupation was not available for entry into the discriminant function in this study because it was a categorical property and could not be measured at the interval level. The results of the statistical analysis indicated a higher frequency of donors than non-donors held professional and managerial occupations. The highest
percentages of donors were in the sales (86%) and clerical fields (67%). There were 62% donors in the "other" category, followed by the managerial category (60%), and the professional category (51%). This finding does not support two previous studies indicating a significance between occupation and donor status. The finding does concur, however, with one study that found no significance between occupation and donor status in the field of education. This conclusion may be weak due to a possible relationship between educator's salaries and donor behavior. The question remains as to the influence of occupation on donor behavior. Further research is necessary into this aspect of alumni philanthropy.

Consideration of the results of the descriptive statistics for the percentage of donors in each occupational category may be a rewarding marketing focus for this population.

**Income**

This variable entered the discriminant function for the donor versus nondonor comparison. The results of the data analysis produced a donor median income in the range of $44,999 - $64,999. The percentage of donor respondents by category was as follows: 20% indicated household income up to $15,000, 44% up to $24,999, 32% up to $34,999, 68% up to $44,999, 64% up to $64,999, 71% up to
$99,999 and 73% over $100,000. This finding reinforces previous research which suggests that there is a modest relationship between income and alumni giving. In this study income relates to the decision to make a contribution, in contrast with some previous findings indicating a relationship between income and the amount of a gift. The question remains whether income influences the amount of the gift. Further research into this aspect of alumni philanthropy is necessary.

It is important that an accurate method of determining income level be in place before the implementation of marketing strategy on alumni with higher incomes.

**Parental Education**

This variable did not enter the discriminant function for the donor versus nondonor group, indicating that there were no significant differences with respect to parental education in this group comparison. Of the respondents whose parents held baccalaureate degrees, 55% were donors. Of the respondents whose parents did not have baccalaureate degrees, 57% were donors.

This finding was consistent with one previous study on public college alumni indicating no relationship between parental education and donor behavior, but was not consistent with a second study that indicated parental education was one of the three most important variables

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related to alumni giving. Some correlation has been made between parental education and income, indicating that parental social class is influential on alumni giving. The question remains as to how this variable would be affected over the years. Further research into this aspect of alumni philanthropy is necessary.

These results indicate that the majority of the alumni respondents are first generation college students. The evidence of parental influence on alumni giving suggests that parent's education would prove to be a practical marketing consideration.

**Year of Graduation**

Year of graduation entered the discriminant function for the donor versus nondonor comparison. In this study, the mean year of graduation for the donors was 1981. The sample included graduates from the years 1963 - 1991. This finding may be influenced by the fact that the institution was established as a two-year branch of the College of William and Mary in 1960, had the first graduating class in 1963, and later became a four-year institution in 1971. Class year and age have shown a high correlation in some previous studies. In this population, the correlation is modest due to the possible increase in more part-time and elderly students. The median age of the donor alumni was 40.
This finding reinforces previous research that shows a relationship between date of graduation and the propensity of alumni to contribute to their alma maters. Disparate findings range from more recent graduates as donors to an inverse relationship, the less recent the year of graduation, the more likely the alumni is to give to the institution.

Consideration of year of graduation may have some utility in the development of enhanced fund-raising strategies for the population examined. The question remains as to the influence of the transition from a two-year to a four-year institution in 1971 upon donor behavior in this sample. Further investigation into this aspect of alumni philanthropy is necessary.

Length of Attendance

Length of attendance did not enter the discriminant function for the donor versus nondonor comparison. This study on a Comprehensive I institution found the donor mean for years of attendance at Christopher Newport College was 4.47 and the nondonor mean was 4.0. The second measure of years of attendance, other degrees earned, also did not enter the discriminant function. Donor alumni held 27 master's degrees and nondonor alumni held 27 master's degrees. Donor alumni held 4 doctorates and nondonor alumni held 3 doctorates. The donor alumni held 5 degrees in the
"other" category and nondonor alumni held 6 degrees in the "other" category. This finding is consistent with two previous studies suggesting that length of attendance does not relate to the giving decision, however, the finding is inconsistent with four studies that found a significant relationship between length of attendance and alumni giving. The disparate results of these studies could be related to the type of institution investigated.

The absence of a significant discriminant function for length of attendance should not dismiss the utility of consideration of this variable in the development of fund-raising strategies for this population. Those graduates who attended longer are more likely to become donors than other alumni due to an increase in emotional attachment to the institution.

Academic Major

This variable was not available for entry into the discriminant function for the donor versus nondonor comparison because it was a categorial property and could not be measured at the interval level. The findings indicated the four disciplines with the highest frequencies for donors were the following: management and marketing, psychology, accounting, and political science. The highest percentages of donors within a discipline came from the following: History (80%), economics and finance (75%), math
(75%), marketing and management (67%) and modern language (67%).

Five previous studies have indicated that the academic major is related to alumni giving. Two specifically found that business alumni were more likely to be donors. These findings support this study's high donor frequency in management and marketing. The question remains if the academic major is influenced by the absence of a major athletic program or resident halls at this Comprehensive I institution. Further research into this aspect of alumni philanthropy is necessary.

Even though the department of major was not significant is this study, the results of the descriptive statistics provide meaningful insight into the development of fund-raising strategies for the population examined.

Emotional Attachment to the Institution

Of the seven measures of current emotional attachment, three entered the discriminant function: library as deserving of financial support, current identification with CNC, and attendance of family members at the institution. The other four measures of current emotional attachment were current feelings toward CNC, value of the education received in preparation for a satisfying and meaningful life, motivation to make a contribution, and reason for not making a contribution. The results of the data analysis on current
feelings for the sample indicated that 68% of the respondents in the very positive feelings category were donor alumni. A high frequency of donor respondents (62%) indicated the education received in preparation for a satisfying and meaningful life was very valuable. Results of the data analysis on donor motivation to make a contribution were as follows: 73% indicated loyalty, 47% indicated the belief in the need to support public education, 41% indicated quality of the college, 26% indicated tax deductibility, 8% indicated other reasons, and 3% indicated to "repay" financial assistance. The results of the data analysis on nondonor motivation were as follows: 41% indicated other charities, 37% indicated they could not afford a donation, 14% indicated "other reasons", 5% indicated public education was not deserving, and 5% indicated they had not been asked. It is interesting to note that 47% of the donors supported private funding of public education and only 5% of the nondonors considered public education undeserving.

These findings are consistent with eight researchers who found emotional attachment to be a significant discriminator in some degree between donors and nondonors. These findings are inconsistent with one study that found a weak significance for emotional attachment.

Emotional attachment has many implications for the development of fund-raising strategies for the population
examined. Three of the seven measures of emotional attachent were statistically significant.

**Participation in Undergraduate Extracurricular Activities**

This variable did not enter into any of the discriminant functions. The results of the data analysis on extracurricular activities was inconsistent with six previous studies that found a significance between undergraduate involvement and alumni contributions, and consistent with two studies that reported no significant relationship between involvement and alumni giving. These disparate findings may point to possible differences between institutions and populations.

Participation in undergraduate extracurricular activities does not appear to have any implications for the development of fund-raising strategies for the population examined.

**Postgraduate Involvement with the Institution**

One of the two measures of postgraduate involvement with the institution entered into the discriminant function as one of six discriminators. Planned campus visits, such as class reunions and special or sports events, was a discriminator between donors and nondonors with the population examined. The results of the data analysis on planned visits showed that the donor mean was 2.89 and the
nondonor mean was 1.01. Fifty-three percent of the donors made no planned visits, 9% made 1 visit, 10% made 2 visits, 8% made 3 visits, and 10% made 10 or more visits. Donor participation concentrated in the 1 to 3 or 10 or more visit range. The results of the data analysis on the second measure of postgraduate involvement, off-campus activities, showed a donor mean of 0.875 and a nondonor mean of 0.505. Eighty-one percent of the donor alumni reported no participation, 6% participated in 1 activity, 5% participated in 2 activities, 1% participated in 3 activities, and 3% participated in 10 or more activities. These findings are consistent with ten previous studies indicating a significant positive relationship between postgraduate involvement and alumni donor and nondonor behavior.

As one of the discriminators among the six that entered into the discriminant function, planned campus visits has significant potential for the development of fund-raising strategies with the population examined.

**Interrelationships of Discriminating Variables**

The statistical tests performed in this study reflect the interaction of the discriminating variables but they do not show the manner in which the variables interact as discriminators of alumni donor behavior. Therefore, one can
only speculate about the exact nature of the interrelationships.

Emotional attachment to an institution in some degree has been found to be a significant discriminator in several previous studies, the majority of which were conducted at large public and private universities or small private colleges. Three of the six discriminating variables in this study at a Comprehensive I institution may be thought of as indices of emotional attachment to the institution: planned visits, degree of identification with CNC, and attendance of family members. Research in alumni philanthropy shows quite clearly when an alumnus becomes involved with an institution, that person feels more identification and provides financial support.

The findings of this study indicated that emotional attachment to a Comprehensive I institution is a strong discriminator between donors and nondonors. This suggests that the indices of emotional attachment are highly situational and cannot be generalized beyond the types of populations and institutions studied in this type of research. Interrelationships and powers of the discriminating variables must be examined in consideration of the pool of variables from which they were drawn.
Conclusions

The following conclusions are warranted based on the findings of this study:

1. It is probable that one can predict alumni of a Comprehensive I Institution as donors or nondonors with a moderate degree of accuracy on the following discriminating variables: planned visits; household income; designation of funds to the library; year of graduation; identification with the institution; and attendance of family members.

2. Some variables affect all groups of donors similarly, but variables such as institutional size, type, age and location affect alumni donors differently and to different degrees.

Recommendations for Further Study

This study explores alumni philanthropy in a Comprehensive I institution and reflects an intentionally narrow scope and focus. The findings of this study warrant additional research. Recommendations for further study include a repetition of this study in other Comprehensive I institutions using variables that have potential to discriminate between donors and nondonors. Further study at CNC should include repetitions of this study adding a variation of discriminating variables and a longitudinal
examination of variable effects.

Several discriminating variables are recommended for inclusion in a repetition of this study: (1) amount of donor contribution and the influence of income and gender on the amount of the gift; (2) postgraduate involvement with the institution, such as readership of alumni publications and satisfaction with alumni events; (3) emotional attachment, such as absence of athletic program and residence halls that could influence designation of funds; (4) capital improvements and salaries to expand the designation of funds category; (5) occupation and academic major should be measured at the interval level in order to be allowed to enter the discriminant analysis; (6) nondonor motivation should be explored by adding discriminating variables to determine which competing charities rank highest; and (7) years since graduation.

Longitudinal studies are recommended to determine the possible effects of such variables as education of parents and the transformation of CNC from a two-year to four-year institution on donor nondonor characteristics.

The development and implementation of marketing strategies using information derived from this study are also recommended. The fund raiser has a composite view of donors and the characteristics to be looked for in future prospect pools. For example, age distribution can be used to plan deferred giving strategies. Income information can
direct attention to alumni who have the potential of moving to higher giving levels. Demographic data and information on interests and activities can be used for follow-up and contacts with specific subgroups, as well as for selecting fund-raising themes, selecting newsletter content, and choosing topics for alumni get-togethers. Finally, the data elements could be set up so they can be aggregated into desired profiles and a system of prospect ranking. The assessment of the effectiveness of the marketing strategies is also recommended.

Finally, future research should include the development of a theoretical conceptualization for the examination of alumni philanthropy. This can be accomplished through repeated tests of the narrow generalizations derived from practice in an effort to broaden their predictive power.
CHRISTOPHER NEWPORT COLLEGE BENCHMARK GROUP

California State University - Dominguez Hills
California State College - Stanislaus
David Lipscomb College
Kennesaw College
Le Moyne College
Michigan-Flint, University of
North Carolina at Ashville, University of
North Carolina Wilmington, University of
Pennsylvania State University Capitol Campus
Providence College
Rutgers University Camden Campus
Savannah State College
Southern University at New Orleans
Southwest State University
St John Fisher College
State University of New York College of New Jersey
Stockton State College
Tampa, University of
University of Southern Indiana
Utica College of Syracuse University
Winston Salem State University
Wisconsin Parkside, University of
York College, Pennsylvania
APPENDIX B

COVER LETTER
September 23, 1991

Dear CNC Graduate:

In spite of the state budget cuts, CNC is moving ahead to position itself to meet the needs of area residents in the 21st Century. We need your help to determine how we can better serve you and your fellow alumni of CNC.

We are asking you and a select number of other CNC alumni to participate in a short confidential survey designed to evaluate our current programs and to gather suggestions for improvement. The entire procedure should take approximately 10 minutes to complete. As a graduate, you are keenly aware of the commitment the college has made to providing quality education and services to students for 30 years.

In order to maintain your confidentiality, we ask that you not identify yourself on the survey. Please return the completed survey in the postage-paid envelope within a week. Your prompt reply will help us conclude the study in a timely manner.

In order to keep you informed, the results of the study will be reported in an upcoming issue of the CNC News.

The enclosed pencil imprinted with the CNC logo is a small token of our appreciation for participating in the survey. We hope you will enjoy using it.

Thank you for helping us to better serve the needs and interests of our alumni as well as our present and future students.

Yours truly,

[Signature]

Anthony R. Santoro
President
APPENDIX C

QUESTIONNAIRE
CHRISTOPHER NEWPORT COLLEGE ALUMNI SURVEY

Estimated Time Required: 10 Minutes. Do not sign your name or identify yourself in any way on this form. Please return the completed survey in the postage-paid envelope enclosed. Thank you.

1. Indicate the approximate number of extracurricular activities that you participated in while a student at CNC. (Count active participation in activities such as student council, music, drama, special interest clubs, athletics, Greek life, etc. Circle number)

0 1 2 3 4 5 6 7 8 9 10 OR MORE

2. Which describes your current feelings toward CNC? (Circle number)

VERY NEGATIVE  NEGATIVE  NEUTRAL  POSITIVE  VERY POSITIVE

1 2 3 4 5

3. Which describes your current identification with CNC? (Circle number)

NONE  WEAK  MODERATE  STRONG  VERY STRONG

1 2 3 4 5

4. Disregarding financial considerations, how valuable do you believe the education received at CNC has been in preparing you for a satisfying and meaningful life? (Circle number)

1 NOT CERTAIN  
2 NOT AT ALL VALUABLE  
3 SOMEWHAT VALUABLE  
4 VALUABLE  
5 VERY VALUABLE  

5. Since graduation, how often have you (a) been back to CNC campus for a planned visit such as a class reunion, special or sport event, or (b) participated in an off-campus alumni activity such as an alumni meeting, phonathon, volunteer work, etc.? (Circle numbers)

PLANNED CAMPUS VISIT 0 1 2 3 4 5 6 7 8 9 10 OR MORE
OFF-CAMPUS ACTIVITY 0 1 2 3 4 5 6 7 8 9 10 OR MORE

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6. Have you ever made a financial contribution to CNC? (Circle number)
   1 NO (Skip question 7 and answer question 8)
   2 YES (Answer question 7 and skip question 8)

7. What motivated you to make your gift(s) to CNC? (Circle all numbers that apply)
   1 LOYALTY TO THE COLLEGE
   2 QUALITY OF THE COLLEGE
   3 TAX DEDUCTIBILITY OF SUCH GIFTS
   4 BELIEF IN THE NEED TO SUPPORT PUBLIC HIGHER EDUCATION
   5 TO "REPAY" FINANCIAL ASSISTANCE RECEIVED AS A STUDENT
   6 OTHER (SPECIFY BELOW)

8. Why haven't you contributed to CNC? (Circle all numbers that apply)
   1 CANNOT AFFORD IT
   2 DON'T THINK A PUBLIC COLLEGE NEEDS PRIVATE SUPPORT
   3 OTHER CHARITABLE CAUSES ARE MORE IN NEED OF MY SUPPORT
   4 HAVE NOT BEEN ASKED
   5 OTHER (SPECIFY BELOW)

9. How would you rate each of the following areas as deserving of financial support by alumni? (Circle number for each area listed)

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<td>OTHER (SPECIFY BELOW)</td>
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</table>
10. Gender (Circle number)
   1 MALE
   2 FEMALE

11. Age (To your nearest birthday)

12. Current marital status (Circle number)
   1 NEVER MARRIED
   2 MARRIED
   3 SEPARATED
   4 DIVORCED
   5 WIDOWED

13. Current occupation? (Circle the number of your answer)
   1 CLERICAL
   2 HOMEMAKER
   3 MANAGERIAL
   4 PROFESSIONAL
   5 SALES
   6 OTHER ____________________________

14. What range represents your total household income last year? Include only yourself and your spouse, if applicable. (Circle number)
   1 LESS THAN $15,000
   2 $15,000 TO $24,999
   3 $25,000 TO $34,999
   4 $35,000 TO $44,999
   5 $45,000 TO $64,999
   6 $65,000 TO $99,999
   7 MORE THAN $100,000

15. Do your mother and/or father hold baccalaureate degrees? (Circle Number)
   1 YES
   2 NO
16. Did any family members listed below attend Christopher Newport College? (Circle numbers that apply)

1 GRANDPARENT
2 PARENT
3 BROTHER OR SISTER
4 SPOUSE
5 CHILD
6 GRANDCHILD
7 NONE OF THE ABOVE

17. How many years did you attend CNC? (Count part-time and full-time status. Enter number to the nearest half year below, e.g., 4.5, 5, etc.)

18. What year did you graduate? ________
(If you received more than one degree, give the class year for the first degree you earned)

19. Your degrees? (Circle all numbers that apply)

MASTER'S 1
DOCTORATE 2
OTHER (SPECIFY BELOW) 3

20. Your major(s)? (Enter answers below)

UNDERGRADUATE ________________________________
MASTER'S ________________________________
DOCTORATE ________________________________
OTHER (SPECIFY) ________________________________

THANK YOU FOR YOUR TIME AND ASSISTANCE
PLEASE RETURN THE SURVEY IN THE POSTAGE-PAID, ADDRESSED ENVELOPE
October 18, 1991

Dear Alumnus(a):

About three weeks ago we mailed you a survey asking for information that will help us to better serve our alumni and students.

Thank you if you have already completed and returned it. Your response is extremely important to the success of the study.

In the event that your questionnaire has been misplaced, a replacement is enclosed. We respectfully ask that you complete and return it in the postage-paid envelope within the next two or three days. Remember, all the information you provide will be strictly confidential and will be used only to report collective data.

Your cooperation is greatly appreciated.

Cordially,

Paul E. Holcomb
Vice President for Development

Commonwealth of Virginia
November 8, 1991

Dear Alumnus(a) of Christopher Newport College:

Thank you for taking the time to speak to me this week and for agreeing to complete and return the enclosed alumni survey, part of my degree requirements for the Ed.D. in Higher Education at the College of William and Mary.

As I mentioned, we have had a splendid response to the survey to date. More than 55% have been returned. However, to determine if the respondents are different from the nonrespondents, we need a return of 70%. Your completed survey will be of tremendous help to us in this respect. In fact it is critical to the ultimate success of the study.

As mentioned in earlier letters, your responses will be completely confidential. The number on the front of the questionnaire is there only to check returns against the mailing list.

Thank you very much for your cooperation in this very important phase of the survey.

Sincerely,

Linda Burgess-Getts
Survey Project Director
References


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Vita

Linda Burgess-Getts

Birthdate: August 26, 1946

Birthplace: Wilson, North Carolina

Education:

1964-1968 Atlantic Christian College
   Wilson, North Carolina
   Bachelor of Arts

1968-1969 Meredith College
   Raleigh, North Carolina
   Teacher Certification

1971-1973 East Carolina University
   Greenville, North Carolina
   Master of Arts

1988-1991 The College of William and Mary
   Williamsburg, Virginia
   Educational Specialist
Abstract

ALUMNI AS GIVERS: AN ANALYSIS OF DONOR NONDONOR BEHAVIOR AT A COMPREHENSIVE I INSTITUTION
Linda Burgess-Getts, Ed.D.
The College of William and Mary in Virginia, March 1992
Chairman: James M. Yankovich, Ed.D

There has been limited research published about the characteristics of alumni donors in higher education. The majority of the research that has been done focused on large universities, consequently, such research findings may not be generalizable to smaller institutions.

The purpose of this study was to determine to what extent selected demographic, academic, behavioral, and attitudinal variables would discriminate between donors and nondonors in a smaller college or university such as a Comprehensive I institution.

Data for the study were gathered through a questionnaire mailed to a simple random sample of 300 alumni of a Comprehensive I institution. A 72 percent response to the questionnaire was realized. The data gathered were analyzed using descriptive statistics and discriminant analysis techniques available through Statistical Analysis Systems (SAS) software.

It was concluded that it is probable that a Comprehensive I institution can predict group classification
of alumni as donors versus nondonors at a success rate of approximately 75 percent and that: (1) the most powerful discriminating variables between alumni donors and nondonors within the population examined were planned visits, household income, designation of funds to the library, year of graduation, identification with the institution, and attendance of family members; (2) it is probable that descriptive and discriminant statistical analysis of selected variables can enhance fund raising strategies; (3) some variables affect all groups of donors similarly, but variables such as institutional size, type, age and location may affect alumni donors differently and to different degrees.