

The Relationship between Personal and Social Growth and Involvement in College and Subsequent Alumni Giving

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Abstract

This study focused on how college experiences influence the decision of alumni to contribute financially to a small, religiously affiliated liberal arts university. Collegiate extracurricular activities and the college's contribution to personal and social development were examined as they relate to donor status and donor level. ACT College Outcomes Survey data obtained from 1,885 graduating seniors (93% of the population) between 1994 and 2003 were combined with donation and undergraduate involvement records. Results indicate that years since graduation and three types of activities – social, campus leadership and academic – are able to distinguish donors from nondonors. Years since graduation, spouse alumnus, campus leadership activities and social activities are shown to have a minor, but significant, relationship to the amount of donation.

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Introduction

Philanthropy has played a significant role in the growth of American higher education through the years. As far back as the 17th century, Americans have given liberally to support colleges and universities. These monies have been invaluable to the progress, and even the existence, of institutions of higher education across the country.

The major source of these private funds has been and continues to be the alumni of the particular institutions. This tradition of giving back to one's alma mater has developed into a multi-billion dollar affair in the United States each year. Without these funds, institutions across the nation, both public and private, would not be able to function as they currently do, and some would simply cease to exist.

Background

In 1996 the Commission on National Investment in Higher Education reported that higher education across the United States was in a funding crisis (Council for Aid to Education, 1996). One major consequence of this funding crisis was a significant increase in costs to students. A 1998 report to Congress by the National Commission on the Cost of Higher Education, entitled *Straight Talk about College Costs and Prices*, documented concerns and stressed the reality of public anxiety over rising college prices. One portion of the report stated that colleges and universities risk "an erosion of public trust" if the price of attendance continues to rise at the current rates. This committee went on to declare that federal action could be taken, including losses of programs, research money and scholarships, if institutions do not behave more responsibly to control their costs.

In addition to the need to control increasing costs, this funding crisis emphasizes the need for additional revenue for colleges and universities everywhere. Understanding alumni giving behavior and its related factors is one approach that could lead to significantly increased revenue for institutions. Some organized research in this area has been conducted previously, but it is comprised mostly of doctoral dissertations with few published studies on the topic.

Significance of the Study

Because of the importance to colleges and universities of obtaining ever greater funding, this study focused specifically on how college experiences influence the decision of alumni to give back to a small, private, religiously affiliated liberal arts university. A key practical implication of this study is that if experiences while in college, or other influences within the control of the institution, have a direct and significant positive impact on donor status (donor/non-donor) and donor level (amount of giving), institutions would benefit by using all reasonable and educationally sound means to provide students with these particular experiences. Institutions of any type or size may benefit from this information by attempting to shape the opportunities and experiences available for their students and future alumni (Cockriel & Kellogg, 1994). A second key implication is that fundraisers could more efficiently target potential alumni donors based on the knowledge of their particular experiences while in college.

Therefore, this study, in essence, attempted to determine a method of differentiating and predicting alumni donors and non-donors. As suggested by Okunade and Berl (1997), knowing who the likely donor is can assist development efforts by allowing fund-raisers to target the most likely candidates to give. The results are also useful for academic and student affairs professionals. Each of these groups can have a better understanding of what types of activities,

whether inside or outside the classroom, have an impact on future giving. This knowledge may lead these administrators and policymakers to ensure that these opportunities are provided.

Research Questions

The current study sought to answer the following research questions:

- 1) What is the relationship between both a) type of undergraduate extracurricular activity and b) the college's contribution to one's personal and social development and alumni donation or nondonation to the institution?
- 2) What is the relationship between both a) type of undergraduate extracurricular activities and b) the college's contribution to one's personal and social development and the amount of donation to the institution?

Conceptual Framework and Hypotheses

The foundational hypothesis that provides a framework for this research suggests that student experiences while in college have a major impact on feelings and opinions towards the institution. Much research has shown that college attendance has a major impact on personal development and intellectual growth as well as providing other positive outcomes (Astin, 1993; Kuh, 1995; Pace, 1979; Pascarella & Terenzini, 1991). These positive outcomes stem from experiences that occur both inside and outside the classroom. These experiences may have a significant impact on future "motivation to give" which will be discussed as a major factor in donation decisions.

Graham and Cockriel (1997, p. 200) cite the need to develop "broad categories of student outcomes and to study the students' assessment of the impact of college on their academic and personal growth." Although prior research has investigated the impact of educational outcomes on alumni giving, this current study goes one step further by examining the amount of growth

that students attribute to the college itself and its relationship to alumni giving. This was accomplished by using the ACT College Outcomes Survey to determine if the student's perception of the college's contribution to these personal and social outcomes was significantly related to his or her giving as an alumnus.

Because of the significance of the current study, the rationale for its undertaking, and the questions that it addressed, the following hypotheses were tested (stated in null form):

- H1: There are no significant differences in a college's contribution to personal and social growth or type of extracurricular activities between donors and nondonors.
- H2: There are no significant differences in a college's contribution to personal and social growth or type of extracurricular activities between high and low donors.

Literature Review

In light of the great need for increased funding and the lessening of government support, colleges and universities increasingly have begun to look for non-governmental support. The Council for Aid to Education (2003) reported that the ratio of voluntary support to institutional expenditures increased from 6.2% in 1992-1993 to 8.1% in 2001-2002. From 1997 to 2001 the amount donated to institutions of higher education in the United States increased from \$16 billion to \$24.2 billion. This equals an inflation adjusted increase of 29.9% in just 4 years. Table 1 illustrates the sources of this voluntary support for education.

Review of Literature on Related Variables

In a thorough review of the literature, Taylor and Martin (1995) cite 33 doctoral dissertations relating to alumni giving and its determinants. Seventeen different demographic variables were listed by Taylor and Martin in their review of the literature. Each variable studied had mixed results to some extent. "Age" received almost unanimous support as a having a

Table 1

Sources of Voluntary Support of Higher Education, 2001-2002

Sources of Contributions	Amount (\$ in billions)	Percentage (%)
Alumni	5.90	24.7
Nonalumni Individuals	5.40	22.6
Corporations	4.37	18.3
Foundations	6.30	26.4
Religious Organizations	0.36	1.5
Other Organizations	1.57	6.6
Total Dollars:	23.90	100.1

Note: The percentage column represents rounding which accounts for the >100% number indicated.

Source: Council for Aid to Education (2003).

significant relationship to alumni giving (Haddad, 1986; Oglesby, 1991; Beeler, 1982; Bruggink & Siddiqui, 1995). As age increased, alumni were more likely to donate, and more likely to donate larger amounts.

Gardner (1975), Beeler (1982) and Shadoian (1989) all found that “emotional attachment” to one’s alma mater was a significant predictor of giving as an alumnus. Several studies found “perceived need of support” to be an important predictor of alumni giving (Leslie et al., 1983; House, 1987; Taylor & Martin, 1995; Diamond & Kashyap, 1997), while more recent research by Pearson (1999) at Stanford University showed that the single greatest deterrent to alumni giving is the perception that the university does not need the gifts as much as other organizations. “Satisfaction with the educational experience” also was found to be

significantly related to donor status (Oglesby, 1991; Shadoian, 1989) as was the similar measure, “satisfaction with the undergraduate experience” (Van Horn, 2002). Others did not find parallel results (Miracle, 1977; House, 1987).

The variable measuring level of “involvement in extracurricular activities” as a student also has conflicting findings. Shadoian (1989), Oglesby (1991), Miracle (1977), Morris (1970) and Gardner (1975) each found that donors participated in more activities as a student. Others found the opposite result, with nondonors participating in more activities as a student (Beeler, 1982; Miller & Casebeer, 1990), while still others (Grill, 1988; Kraus, 1991; Young & Fischer, 1996) found no predictive ability for extracurricular activities. These conflicting conclusions leave much to be desired and suggest that further study is necessary.

Considering specific extracurricular activities, “participation in a sorority or fraternity” has been found to predict those who contribute (Bruggink & Siddiqui, 1995) or donor level (Taylor & Martin, 1995), with others finding that the more willing donors were those who did not participate in fraternities (Okunade, Wunnava, & Walsh, 1994). Further, Taylor and Martin (1995) found participation in a “special interest group” was related to donor status and participation in a “departmental club or organization” was related to donor level.

These variables indicate that a substantial amount of research has been done on variables related to alumni giving, but there continues to be a need for refinement and development of the research. Many of the previous findings are contradictory, and this may be explained by the wide variety of settings in which the research has been conducted. Further research in this field can narrow the focus of the factors related to alumni giving by eliminating the weakest variables and further defining those with the strongest relationship.

Statement of the Research Purpose

The purpose of the current research is to gain an understanding of the variables related to alumni giving at a small, religiously affiliated university by examining the experiences and personal development of students while in college. Specifically, extracurricular activities while in college and the college's contribution to one's personal and social development were examined in an attempt to distinguish donors and nondonors while also predicting the amount of giving.

Using longitudinal data from the ACT College Outcomes Survey and the related constructs proposed by Graham and Cockriel (1997), this study investigated a unique line of inquiry by examining the link between gift giving behavior and the attribution of the college's contribution to one's personal and social development while in college. This approach to alumni giving research ultimately attempted to advance the theoretical and empirical study of alumni gift giving behavior.

METHODOLOGY

This study was designed to identify the relationship between two measures of students' experiences in college and their subsequent donor behavior. The college's contribution to students' perceptions of their personal and social development as well as their extracurricular involvement during college were examined as they relate to two financial measures – a) whether or not students contributed financially as alumni and b) how much students contributed as alumni. The selected design for this research was a longitudinal study that examines previously collected census survey data in conjunction with involvement and giving records.

Subjects

The subjects for this study are the bachelor's degree recipients from Freed-Hardeman University during the years 1994-2003. Freed-Hardeman University (FHU) is a small, private, religious, teaching university in rural Southwest Tennessee. It is a primarily residential campus (approximately 75% in campus housing) affiliated with churches of Christ and is composed of mostly traditional age students with ethnic minorities comprising less than 10% of the student population. Typically, 95% of the undergraduates are full-time students who represent at least 35 states and 13 foreign countries with slightly over half coming from out of state. In the fall of 1993, total University headcount enrollment was 1,361, with 1,224 undergraduates. In the fall of 2003 total University headcount enrollment was 1,966, with 1,447 undergraduates. This ten-year population of bachelor's degree graduates totals 2,022 students.

Variables

Independent Variables

The independent variables used in this study may be categorized into two major areas. The first area is a measurement of the students' opinion concerning how much the college contributed to their personal and social growth. The second major area is the type of extracurricular activities in which a student participated. Selected demographic variables also were included to assess their impact on alumni giving.

College's Contribution to Personal and Social Development

Graham and Cockriel (1997) studied over 9,000 students from 75 different colleges who completed the ACT College Outcomes Survey (COS). Their intent was to develop broad outcomes of college, specifically based on students' perceptions of colleges' contributions to their personal and social development. Section II, Part D of the COS measures 36 items that are

rated in relation to the college's contribution to the student's personal growth. Each item is rated on a scale of 1 to 5 measuring the college's contribution towards that particular outcome, with 1 being "none", 2 being "little", 3 being "moderate (average)", 4 being "great", and 5 being "very great."

In Graham and Cockriel's (1997) factor analysis of these 36 items, all but one fell into four factors that measure different aspects of personal and social development. Table 2 illustrates a complete listing of the factors, factor loadings, and the correlation coefficients. As illustrated, each factor is comprised of at least six items, therefore a mean score for each factor will be used for each individual record. It was anticipated that the same four factors would appear as a result of the factor analysis of the data in this study. These factors were used as the measurements of the college's contribution to the student's personal and social growth while in college.

Table 2 (from Graham and Cockriel, 1997)

Factor Loadings and Item Correlations with Respective Factors for the 36 ACT College Outcomes Survey Measures

Factor I	Personal Valuing and Moral Development	R
.741	Developing religious values	.734
.739	Becoming a more responsible family member	.820
.680	Developing moral principles to guide actions	.817
.653	Clarifying personal values	.820
.594	Sense of purpose and value for life	.801
.581	Learning to manage finances	.702
.573	Taking responsibility for own behavior	.775
.563	Understanding religious values different from my own	.738
.522	Seeking and conveying the spirit of truth	.768
.515	Constructively expressing emotions & ideas	.750
.465	Active in volunteer work	.664
Factor II	Intrapersonal Development	R
.744	Becoming academically competent	.746
.740	Increasing intellectual curiosity	.761
.712	Acquiring a well-rounded general education	.705
.654	Willing to change & learn new things	.809
.628	Developing self-confidence	.797
.613	Setting long-term or life goals	.787
.594	Ability to stay with a project until the end	.757
.572	Understanding myself, my talents, & my interests	.790
.507	Productive work relations with others	.752
.474	Acquiring appropriate social skills	.745
Factor III	Social Leadership and Development	R
.691	Becoming an effective team or group member	.751
.677	Ability to relate to others	.817
.654	Developing leadership skills	.779
.645	Interacting well with people from different cultures	.731
.619	Willing to consider opposing points of view	.760
.599	Learning to be adaptable, tolerant, & willing to negotiate	.790
.588	Coping with changes as they occur	.778
.450	Dealing fairly with a wide range of people	.746
Factor IV	Civic Involvement and Awareness	R
.793	Aware of political & social issues	.860
.729	Participating in the election process	.820
.705	Aware of global issues	.782
.641	Gaining insight into human nature	.716
.631	Recognizing rights, responsibilities, & privileges	.834
.575	Sensitive to moral injustices	.791

Type of Extracurricular Activity

Extracurricular activity was tracked as participation in each of six broad categories of activities: academic, athletic, social, spiritual, campus leadership, and performance groups. Each category was coded as a continuous variable (ranging from 2 to 34) based on the number of activities in which the student participated. The six categories and the activities that fall into each are listed in Table 3.

Table 3

Extracurricular Activities

Academic	Alpha Psi Omega	Art Guild	Biology Club
	Collegiate Business Association	Family & Consumer Science Club	National Broadcasting Society
	NBsSAERho	Pi Beta Chi	Pi Epsilon
	SMENC	SWSA	Theatre
	COMMA	Kappa Sigma	French Club
	Human Resource Society	Society for Future Accountants	Modern Language Club
	Pre-Law Club	Psychology Club	Delta Mu Delta
	SIFE	Math Association	Honors Coursework
	Alpha Chi	Honors Association	Honors Council
	Honors Thesis Graduate	Honors College Scholar	TV Studio
	Bell Tower Staff	Treasure Chest (Yearbook)	SNEA/Future Teachers
	WFHC		
Athletic	Intercollegiate sports	Intramural athletics	
Social	Social clubs	Makin' Music director	Makin' Music host
	Makin' Music participant	Makin' Music staff	
Spiritual	BEST (Support Team)	Campaigns	Evangelism Forum
	Missions Group	Preacher's Club	Sigma Pi Beta
	Tabitha Club	IMPACT	
Campus Leadership	Homecoming Representative	Mr./Miss FHU Nominee	University Program Council
	Student Alumni Association	University Student Ambassadors	Interface Leader (Orientation)
	SGA	Team Advance	
Performance Groups	A Capella	Ambassadors	Band
	Battery	Chorus	For Heaven's Sake
	Hallmark Voices	Pied Pipers	Sonshine Singers

Demographic Variables

Three demographic variables - years since graduation, gender and spouse attendance - each have support as predictors of alumni donor behavior and were considered in the analysis. For data entry purposes, time since graduation was treated as a continuous variable while gender (0=male, 1=female) and spouse attendance (0=yes, 1=otherwise) were coded dichotomously.

Dependent Variables

The dependent variables for this study were a) Donor/Nondonor Status and b) Donation Amount. The dichotomous variable of Donor/Nondonor Status defines donors as those who have a lifetime donation of greater than \$1. This is due to a graduation day promotion sponsored by the FHU alumni office for a few years in the mid 1990s in which graduates were given a dollar bill and then given the opportunity to return it as a gift. Those who made that gift and no other were not considered donors. Donation Amount for each individual was measured using his or her total lifetime donation to the university as reported by the Office of Development.

ANALYSIS OF DATA

Introduction

Data were collected to examine the relationship between a student's personal and social growth while in college and his or her subsequent donation as an alumnus. Further, involvement was defined as level of participation in one of six extracurricular activity categories, and its relationship to alumni giving was investigated. These two factors, personal and social growth and involvement in college, if found to distinguish between donors and nondonors or if shown to strongly relate to level of alumni giving would help explain alumni giving patterns.

Demographic and Descriptive Statistics

Each bachelor's degree graduate at Freed-Hardeman University from 1994-2003 was required to complete the ACT College Outcomes Survey. There were 2,022 records, however 137 (6.8%) did not have a usable identification number either on the survey or in the alumni records. This left 1,885 records that were usable for the analysis. Of these individuals, 582 (31%) were married to an alumnus (defined as someone who attended the institution, regardless of graduation status). Of these alumni who were married to alumni, 420 were married to an alumnus that was also in the data. To reduce the dependency in the data caused by this double counting of gifts, half of these alumni (210) who were married to other alumni in the data set were randomly removed. This left 1,675 usable records for the final analysis. Of these 1,675 alumni, 26% were married to an alumnus, 44% were male, and they received their undergraduate degree an average of 5.5 years prior.

Data Reduction Using Factor Analysis

A factor analysis procedure was used to reduce the data from the 36 items measuring the "college's contribution to the student's growth" on the ACT College Outcomes survey into factors that represent the distinct constructs measured by the items. This procedure attempted to replicate the extensive work of Graham and Cockriel (1997). The resulting factor scores were later tested as to their relationship to alumni giving.

Graduates were asked to rate the extent of their personal growth since entering college on the items, and were also asked to indicate the "extent of the **college's contribution** (i.e., your college experiences both in and out of class) to your growth (regardless of the extent of your personal growth in a given area)." The amount of growth attributed to the college was measured

on a scale with the following response options: none, little, moderate (average), great and very great. Respondents were also allowed to select “not applicable.”

Raw scores were analyzed using a principal components factor analysis with an oblimin rotation. The results of the factor analysis, including factor loadings and correlations, are in Table 4. Thirty of the thirty-five items fell into the four factors as described by Graham and Cockriel (1997): personal valuing and moral development, intrapersonal development, social leadership and development, and civic involvement and awareness. One item, “becoming a more effective member in a multicultural society” did not fit into Graham and Cockriel’s analysis and because of evenly distributed loadings (.126 to .412) was discarded in the current analysis as well. The five items that did not fall under the same factors as described by Graham and Cockriel are noted in Table 4. This high rate of similarity to previous research gives evidence for the reliability of the factors.

Table 4
Pattern and Structure Matrices from the Factor Analysis

ACT COLLEGE OUTCOMES SURVEY MEASURES OF COLLEGE'S CONTRIBUTION TO STUDENT'S GROWTH	FACTORS			
	Intrapersonal Development	Civic Involvement & Awareness	Personal Valuing & Moral Development	Social Leadership & Development
Becoming academically competent	.678 (.787)	-.015 (.375)	.155 (.551)	-.056 (-.525)
Increasing my intellectual curiosity	.648 (.782)	.183 (.503)	.106 (.531)	.003 (-.537)
Acquiring a well-rounded General Education	.568 (.738)	-.007 (.398)	.156 (.562)	-.158 (-.571)
Improving my ability to stay with projects until they are finished	.522 (.726)	.173 (.515)	.131 (.553)	-.105 (-.585)
Developing productive work relationships with both men and women	.465 (.712)	.195 (.556)	.086 (.553)	-.210 (-.641)
Understanding myself, my talents, and my interests	.414 (.707)	.177 (.559)	.178 (.614)	-.216 (-.668)
Setting long-term or "life" goals	.386 (.685)	.182 (.532)	.334 (.666)	-.074 (-.612)
Developing self-confidence	.328 (.644)	.056 (.473)	.236 (.625)	-.295 (-.662)
Becoming more aware of local and national political and social issues	-.012 (.354)	.934 (.896)	-.026 (.336)	.037 (-.503)
Preparing myself to participate effectively in the electoral process	-.079 (.307)	.909 (.874)	-.012 (.330)	-.006 (-.503)
Becoming more aware of global and international issues/events	.037 (.374)	.792 (.813)	-.045 (.332)	-.039 (-.509)
Recognizing my rights, responsibilities, and privileges as a citizen	.084 (.449)	.748 (.828)	.022 (.419)	-.059 (-.571)
Becoming sensitive to moral injustices and ways of avoiding or correcting them	.043 (.444)	.500 (.673)	.289 (.557)	-.056 (-.566)
Gaining insight into human nature through the study of literature, history, and the arts	.338 (.546)	.494 (.633)	.013 (.391)	.019 (-.476)
Learning how to manage finances (personal, family, or business)*	.158 (.421)	.378 (.536)	.118 (.405)	-.067 (-.459)
Developing my religious values	.164 (.515)	-.139 (.245)	.790 (.801)	.031 (-.483)
Seeking and conveying the spirit of truth	.025 (.456)	.031 (.365)	.778 (.801)	.005 (-.525)
Developing moral principles to guide my actions and decisions	.190 (.575)	-.095 (.325)	.738 (.832)	-.048 (-.568)
Clarifying my personal values	.096 (.538)	.074 (.443)	.701 (.820)	-.056 (-.602)
Developing a sense of purpose, value, and meaning for my life	.207 (.616)	.086 (.478)	.599 (.802)	-.086 (-.637)
Learning how to become a more responsible family member	-.094 (.407)	.303 (.566)	.591 (.726)	-.092 (-.600)
Taking responsibility for my own behavior	-.089 (.423)	.183 (.521)	.560 (.739)	-.235 (-.653)
Understanding religious values that differ from my own	-.167 (.294)	.139 (.440)	.369 (.567)	-.361 (-.587)
Becoming more willing to consider opposing points of view	-.047 (.384)	-.034 (.423)	.026 (.481)	-.774 (-.744)
Interacting well with people from cultures other than my own	.015 (.394)	.096 (.496)	-.174 (.369)	-.774 (-.729)
Improving my ability to relate to others	.067 (.513)	-.073 (.454)	.104 (.592)	-.755 (-.814)
Preparing to cope with changes as they occur (e.g. in career, relationships, lifestyle)	-.070 (.430)	.086 (.533)	.145 (.584)	-.689 (-.795)
Learning to be adaptable, tolerant, and willing to negotiate	.037 (.489)	.138 (.566)	.071 (.554)	-.634 (-.783)
Becoming an effective team or group member	.193 (.540)	-.089 (.399)	.070 (.536)	-.624 (-.722)
Developing leadership skills	.105 (.516)	-.008 (.445)	.244 (.621)	-.507 (-.716)
Dealing fairly with a wide range of people	.343 (.646)	.050 (.500)	.005 (.531)	-.499 (-.724)
Becoming a more effective member in a multicultural society	.315 (.612)	.293 (.634)	-.131 (.439)	-.434 (-.702)
Acquiring appropriate social skills for use in various situations**	.320 (.654)	.040 (.495)	.151 (.611)	-.423 (-.722)
Actively participating in volunteer work to support worthwhile causes*	-.059 (.369)	.182 (.496)	.241 (.537)	-.395 (-.625)
Becoming more willing to change and learn new things**	.356 (.668)	.085 (.515)	.125 (.592)	-.373 (-.703)
Constructively expressing both emotions and ideas*	.341 (.661)	.176 (.573)	.084 (.570)	-.358 (-.708)

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

Note: Structure Matrix Correlations in Parentheses

*Fell under Graham and Cockriel's (1997) personal valuing and moral development

**Fell under Graham and Cockriel's (1997) intrapersonal development

Correlations between the four factors ranged from .419 to .639 as seen in Table 5.

Although there is more homogeneity of the factors than would be desired, the four underlying constructs can still be differentiated, and these correlations were not judged large enough to prevent further analysis.

Table 5

Factor Analysis Component Correlation Matrix

COMPONENT	Intrapersonal Development	Civic Involvement & Awareness	Personal Valuing & Moral Development	Social Leadership & Development
Intrapersonal Development	1.000	.429	.541	-.558
Civic Involvement & Awareness	.429	1.000	.419	-.603
Personal Valuing & Moral Development	.541	.419	1.000	-.639
Social Leadership & Development	-.558	-.603	-.639	1.000

Hypothesis Test of Donor Status (Donor versus Nondonor)

In an effort to address the first research question that sought to determine which variables distinguish donors from nondonors, discriminant analysis was applied to the data. This powerful procedure is used when the dependent variable is categorical in nature. It examines the relationships between the variables for their ability to accurately predict or describe group membership. For more information on discriminant analysis, Huberty and Lowman (1998) have a helpful explanation of its multiple uses in higher education research.

The SPSS procedure DISCRIMINANT removes from the analysis all cases that have any missing values on any of the variables. This reduced the data from 1,675 to 1,343 usable cases.

Of these usable cases, 515 (38%) were donors. Table 6 contains the eleven independent variables used in the discriminant analysis as well as means and standard deviations on each variable for donors and nondonors.

Table 6

Means and Standard Deviations for Donors versus Nondonors

Category	Variable	Alumni Groups	Cases	Mean	Standard Deviation
Demographic	Years Since Graduation	Nondonor	828	4.950	2.41
		Donor	515	6.252	2.39
College's Contribution to Personal and Social Growth	Civic Involvement and Awareness	Nondonor	828	-.014	1.01
		Donor	515	.018	1.03
	Intrapersonal Involvement	Nondonor	828	.073	1.01
		Donor	515	-.140	.97
	Personal Valuing and Moral Development	Nondonor	828	.109	1.02
		Donor	515	-.138	.96
Social Leadership and Development	Nondonor	828	-.078	1.03	
	Donor	515	.133	.96	
Involvement	Academics	Nondonor	828	.977	1.35
		Donor	515	1.616	1.73
	Athletics	Nondonor	828	.470	.70
		Donor	515	.621	.70
	Campus Leadership	Nondonor	828	.269	.71
		Donor	515	.680	1.11
	Performance Groups	Nondonor	828	.181	.46
		Donor	515	.258	.55
	Social	Nondonor	828	.853	1.00
		Donor	515	1.367	1.07
	Spiritual	Nondonor	828	.284	.75
		Donor	515	.367	.81

The results of the discriminant analysis indicated four variables having the greatest ability to distinguish between donors and nondonors. One demographic variable (years since graduation) was followed by three extracurricular involvement categories (social, campus leadership and academic) in order of their impact on the discriminant function. None of the

personal and social growth items made a major impact in differentiating between donors and nondonors. Years since graduation stands out as the major discriminating function, however involvement in social groups, campus leadership activities, and academic groups are other areas of difference between donors and nondonors. Discriminant function coefficients and structure matrix coefficients for each variable included in the analysis are listed in Table 7.

Table 7

Discriminant Function for Donor and Nondonor Status

Total Cases = 1343

Donor Group = 515

Nondonor Group = 828

Canonical Correlation		Wilks' Lambda	Chi Square
.393		.846	224.011
Category	Variable	Standardized Discriminant Function Coefficients	Structure Matrix Coefficients
Demographic	Years Since Graduation	.647	.616
College's Contribution to Personal and Social Growth	Civic Involvement and Awareness	.111	.036
	Intrapersonal Involvement	-.105	-.244
	Personal Valuing and Moral Development	-.076	-.283
	Social Leadership and Development	.143	.240
Involvement	Academics	.237	.482
	Athletics	.094	.246
	Campus Leadership	.311	.529
	Performance Groups	-.026	.178
	Social	.390	.568
	Spiritual	-.023	.123

In this study, 67 percent ($N = 895$) of the cases were correctly classified by group membership. Of the donors, 325 (63.1%) were correctly classified, while 570 (68.8%) of the nondonors were classified correctly. These percentages are similar to other discriminant analyses

that have been conducted regarding alumni donors and nondonors. Other studies correctly classified donors and nondonors at the following rates: Taylor and Martin (1995) = 65 percent; Shadoian (1989) = 69 percent; Grill (1988) = 81 percent; and Beeler (1982) = 64 percent.

These findings illustrate the ability of the selected variables to be moderately effective in discriminating between donors and nondonors. As might be anticipated, years since graduation had the greatest effect on the ability to differentiate between those who have given and those who have not. Alumni who are further removed from graduation have had more solicitations and more opportunities to give, as well as having a longer amount of time to achieve higher incomes and greater savings than more recent graduates. Furthermore, the involvement variables (specifically participation in social, campus leadership, and academic groups) demonstrate that greater involvement in these organizations and activities are an indicator of a greater likelihood to contribute financially as an alumnus.

Hypothesis Test of Donor Level

To address the second research question, an ordinal least squares regression analysis was applied to the data to determine significant relationships between the selected alumni characteristic variables and the amount of donation as an alumnus. This type of regression analysis allows one to measure the relationship between multiple independent variables, which can be continuous or categorical in nature, and one dependent variable. The independent variables used included the four personal and social development factors, the six categories of involvement while a student, and three demographic variables, years since graduation, “spouse alumnus,” and gender. Means and standard deviations for all variables used in the regression equation, as well as the correlations between them, are found in Table 8.

Table 8

Correlations between all variables included in the regression equation

Independent Variables	Demographic			College's Contribution to Personal and Social Growth				Involvement					
	Gender	Spouse Alumnus	Years Since Grad.	Civic Involvement and Awareness	Intrapersonal Development	Personal Valuing and Moral Development	Social Leadership and Development	Academics	Athletics	Campus Leadership	Performance Groups	Social	Spiritual
Gender	1.000	-.100**	.029	.030	-.048	-.032	.057*	.098**	-.112**	.007	.065**	.085**	-.086**
Spouse Alumnus	-.100**	1.000	.119**	.027	-.023	-.063*	.001	.031	.060*	.100**	.056*	.085**	.067**
Years Since Graduation	.029	.119**	1.000	.016	-.086**	-.008	.042	.094**	-.014	-.012	-.019	-.046	-.007
Civic Involvement and Awareness	.030	.027	.016	1.000	.447**	.429**	-.605**	.157**	.017	.014	.053	.112**	.058*
Intrapersonal Development	-.048	-.023	-.086**	.447**	1.000	.547**	-.566**	-.040	-.001	-.080**	.004	-.039	-.044
Personal Valuing and Moral Development	-.032	-.063*	-.008	.429**	.547**	1.000	-.647**	-.078**	-.112**	-.183**	-.057*	-.155**	-.070*
Social Leadership and Development	.057*	.001	.042	-.605**	-.566**	-.647**	1.000	-.023	.080**	.114**	.018	.079**	.046
Academics	.098**	.031	.094**	.157**	-.040	-.078**	-.023	1.000	.070**	.258**	.245**	.302**	.130**
Athletics	-.112**	.060*	-.014	.017	-.001	-.112**	.080**	.070**	1.000	.166**	.079**	.274**	.103**
Campus Leadership	.007	.100**	-.012	.014	-.080**	-.183**	.114**	.258**	.166**	1.000	.160**	.431**	.140**
Performance Groups	.065**	.056*	-.019	.053	.004	-.057*	.018	.245**	.079**	.160**	1.000	.268**	.128**
Social	.085**	.085**	-.046	.112**	-.039	-.155**	.079**	.302**	.274**	.431**	.268**	1.000	.136**
Spiritual	-.086**	.067**	-.007	.058*	-.044	-.070*	.046	.130**	.103**	.140**	.128**	.136**	1.000
MEAN	1.560	.263	5.500	-.002	-.009	.014	.003	1.220	.500	.410	.210	1.020	.320
STD. DEV.	.497	.441	2.511	1.014	.998	1.003	1.008	1.550	.693	.893	.493	1.058	.770

* significant at the .05 level

** significant at the .01 level

The enter method of the SPSS REGRESSION command was used to analyze the data. All 1,343 complete cases were entered into the equation. The three highest donors were considered for removal as outliers, but since they were not consistently or obviously different from their peers on any of the measures, they were included in the equation. Table 9 contains results of the analysis. The regression equation itself was found to be significant at the .001 level, however the variables included only accounted for 4.8 percent of the variance in lifetime donation.

Table 9

Ordinary Least Squares Regression with Lifetime Donation as Dependent Variable

Category	Independent Variables	Unstandardized Coefficients	Standardized Coefficients (Beta)
n/a	(Constant)	-29.01	
Demographic	Gender	-136.94	-.041
	Spouse Alumnus***	410.56	.109
	Years Since Graduation***	63.95	.096
College's Contribution to Personal and Social Growth	Civic Involvement and Awareness	51.55	.031
	Intrapersonal Development	-63.25	-.038
	Personal Valuing and Moral Development	-14.78	-.009
	Social Leadership and Development	31.82	.019
Involvement	Academics	25.54	.024
	Athletics	31.77	.013
	Campus Leadership***	184.46	.101
	Performance Groups	-80.38	-.024
	Social*	-108.33	-.069
	Spiritual	98.19	.046

* significant at the .05 level

** significant at the .01 level

*** significant at the .001 level

$r^2 = .048^{***}$

Three variables – spouse alumnus, years since graduation and number of campus leadership activities – were found to have a significant relationship with lifetime donation amount

($p < .001$). A fourth variable, number of social activities, was a significant predictor at the .033 level. Once again, none of the personal and social development scales were significantly related to lifetime donation.

SUMMARY AND CONCLUSION

The decision to give back to an alma mater is a complex one. As with other research that attempts to explain human behavior, many variables must be taken into consideration. Any effort to predict human behavior is even more difficult. Previous research has suggested that the decision of an alumnus to donate is ultimately a combination of his or her motivation to give (desire) and capacity to give (ability) (Volkwein, Webster-Saft, Xu, and Agrotos, 1989). Objectively and accurately assessing motivation and capacity is a major challenge in this field of research. Generally, a measure of capacity to give on any particular alumnus is not readily available for a number of reasons, the foremost being the confidentiality of his or her personal financial matters. This study explored some factors in an attempt to understand the other important facet of alumni giving - motivation to give. An underlying assumption of the research was that motivation to give was related to the independent variables of involvement during college and how much the college helped the student grow.

While participation in academic groups, athletic activities, performance groups, and spiritual groups did not demonstrate a significant relationship to alumni giving, campus leadership activities and social activities were related to future financial contribution. These campus leadership activities include competitive entry service organizations such as the Student Alumni Association, the University Program Council and the Student Government Association as well as being a recipient of a campus-wide honor, such as being selected as a Mr. or Miss FHU Nominee or a representative on the homecoming court.

These student leaders may be more likely to give back to the university for any number of reasons. They may be more satisfied with their alma mater because they received honors or were able to have special opportunities that led to greater positive feelings and fonder memories than the average student. This higher level of satisfaction with their experiences might explain an increase in their motivation to give. These students also might have a greater capacity to give because their leadership capabilities have translated into more financial success and less student loan debt.

A secondary finding related to involvement while a student was the positive relationship between level of participation in social activities and amount of alumni donation. This measure includes participation in a social club (similar to a co-ed fraternity or sorority) or in the spring student musical production. Most students participate in both of these activities, and these activities generally require the most time and offer the greatest opportunities for building relationships and getting to know other students. Students that choose to not participate in these are certainly in the minority and may not have the feelings of connection to the university that might coincide with the motivation to give.

The other set of independent variables, the college's contribution to the student's personal and social growth, was not found to be significantly related to either donor status or donor level. The expectation was that if a student attributed to the institution much of his or her growth during college, he or she might be more motivated to give back as an alumnus. This researcher is unaware of any other research that has examined these variables in relation to alumni giving, and their usefulness for this purpose appears to be limited.

Recommendations for Future Research

The following are suggested as considerations for future research in this area:

1. Continue to carefully track data on current students and graduates in an effort to later link it to alumni giving records. With continued technological enhancements, this longitudinal approach to alumni research holds promise for the development of improved explanatory models of alumni giving.
2. Attempt to measure and control for the capacity to give, specifically gathering information about alumni income and student loan debt. This might be achieved by using financial aid records in conjunction with other existing survey information.
3. Further investigate each specific campus leadership activity to learn how participation in it might relate to alumni giving.
4. Investigate leadership **roles** in student activities (officers of academic clubs, captain of sports teams, etc.) and how they might relate to alumni giving.
5. Further investigate the characteristics and experiences of student leaders on campus in an effort to understand what makes them more likely to give back to the university.
6. Further investigate each specific social activity to learn how participation in it might relate to alumni giving.
7. Examine the **amount** of personal growth experienced while in college, as opposed to studying the **attribution** of personal growth to the university, and how it relates to future alumni donation.
8. Expand this study to include a wider range of years since graduation, as well as other types of institutions in various settings with different student demographics.

Implications for Higher Education

Higher education in America finds itself in an increasingly difficult financial situation. Decreased funding from state and federal governments and the rising costs to provide an education have led private and public colleges and universities to enhance efforts to raise funds from outside sources. The greatest source of private funds for institutions of higher education has been and continues to be the alumni of the particular institution, with individual alumni across the United States donating over \$6.7 billion to their alma maters in the 2003-04 fiscal year (Council for Aid to Education, 2005). In this climate, the importance of fundraising efforts directed toward alumni is greater than ever.

As these financial strains increase, alumni donations, and therefore alumni research, will only grow in importance. Institutions should attempt to understand what methods of inviting and motivating their alumni to donate are most effective. With only 12.8 percent of alumni across the nation making a donation annually (Strout, 2005), there are ample opportunities to get “new money” by successfully soliciting those alumni who are not current givers.

Advancement professionals may be able to use findings from this research to wisely target alumni who would be more likely donors. For this institution, alumni who are further removed from their college years and are married to alumni are the most likely givers. Furthermore, involvement during college stands out as an important factor to consider when exploring potential alumni donors. More specifically, institutions might find that alumni who were highly involved as campus leaders may be willing to continue to lead the way in terms of financial donations.

As institutions strive to provide a comprehensive education that meets the needs of its students, it appears that one factor that gives a good return on the time invested is offering

students opportunities for social and leadership activities. Student affairs professionals should be assured that their efforts may not only enhance students' experiences while they are on campus, but years down the road these alumni may feel good about making a gift to the university to help other students have the same type of quality experiences.

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