

YOUNG ALUMNI GIVING HABITS AT COLORADO COLLEGE

A THESIS

Presented to

The Faculty of the Department of Economics and Business

The Colorado College

In Partial Fulfillment of the Requirements for the Degree

Bachelor of Arts

By

Karina Guerrero

May 2016

YOUNG ALUMNI GIVING HABITS AT COLORADO COLLEGE

Karina Guerrero

May 2016

Economics & Business

Abstract

Higher education institutions rely heavily on their alumni to donate in order to keep their costs low. This paper focuses on Colorado College's most sporadic givers - young alumni, and analyzing what characteristics on and off campus these donors share. I use data from the Colorado College advancements database for information on young alumni from the years 2000-2015 to create an OLS regression that focus on attributes that describe alumni life on campus and post graduate. I find that overall what an alum was involved in while on campus positively associates with a higher likelihood that they will donate post grad. This correlation was prominently found between what an alum majored in. Furthermore in young alumni postgraduate life marital status and marital status to another Colorado College alumni illustrate a high relationship with giving, while average median income, and being a female negatively correlated. These conclusions provide insight into the importance of the experiences a student has on campus that helps create a strong bond to the school thus causing them to want to continue to be involved with the college and ultimately donate regardless of where and how much they make post grad.

KEYWORDS: (Alumni, Donations, Liberal Arts)

JEL CODES: (I23, L31, I26)

ON MY HONOR, I HAVE NEITHER GIVEN NOR RECEIVED
UNAUTHORIZED AID ON THIS THESIS

Karina Guerrero

Signature

TABLE OF CONTENTS

ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
1 INTRODUCTION	1
2 LITERATURE REVIEW	3
2.1 Income, Age, and Gender Volatility	3
2.2 Athletics	5
2.3 Involvement/Identification	6
3 THEORY	9
3.1 Education	9
3.2 Tax Deductions	10
3.3 Altruism	12
4 DATA & METHODOLOGY	14
4.1 Timeline of the Dataset	14
4.2 Dependent Variable	15
4.3 Independent Variable	15
5 RESULTS	17
5.1 Regression Results	17
5.2 Discussion	18
5.3 Limitations	20
6 CONCLUSION	21

Introduction

We tend to forget that Higher Education falls under the non-profit sector, thus their survival relies heavily on charitable donations. Not surprisingly, alumni are the largest source of voluntary support, who in 2014 alone gave 9.85 billion dollars to higher education. (Snider, 2015) In 2004, alumni at private liberal arts colleges generated nearly 43% of total voluntary support and funded 21.5% of total institutional expenditures (VSE Survey, 2015).

Giving is vital for colleges on two fronts, endowments and annual fund. An endowments sole intention is to invest it, so that the total asset value will yield an inflation-adjusted principal amount, along with additional income for further investments and supplementary expenditures. With these funds they help provide a permanent source of income to support the teaching, research, and public service missions of institutions. Essentially students will get more education then they pay for, because the school is able to spend more on students than they charge in tuition. While the annual fund is an organized effort to obtain gifts on a yearly basis to establish regular giving habits in donors, and provide a steady income, both restricted and unrestricted for general operations. For schools, state schools in particular, when the state contributes less and the school isn't able to raise tuition to cover it, annual contributions can help them keep operating. Both the endowment and annual fund are extremely important for private liberal arts colleges, because they receive zero funding from the state, and typically have smaller student bodies which makes obtaining funds extremely difficult.

Therefore it is not surprising that colleges and universities devote substantial time and resources to court alumni donors. Previous studies have included sports

participations, income, and personal experience as a covariate in micro-level analyses of giving behavior, all have found a positive relationship between these variables and subsequent giving. Many institutes of higher education would benefit from greater insight into the factors that determine alumni giving behavior; in order to help them save time, resources, and increase overall donations.

I contribute to the debate by analyzing alumni giving at one of the nation's most elite liberal arts institution, Colorado College, a Division III school. I use data on more than 7,500 alumni for the years 2000-2015. This micro-level analysis explores the factors (e.g., gender, age, undergraduate involvement, field of study, occupational sector, etc.) that influence both an alumnus' propensity to donate and the amount donated. I also expand the broader literature on charitable giving by exploring the link between charitable giving and prestige of the institution; specifically, I ask whether alumni contributions increase in years when the college has achieved greater academic and/or athletic prestige and if so, which type of prestige has a greater impact on giving behavior. Previous studies have been conducted on these variables, but to my knowledge a study like this has not been ran for Colorado College specifically. In particular I am only testing young alumni who have the highest variation of giving because they are typically the most unstable post graduation. Lastly, I test for a differential impact of prestige by age, gender, and other personal characteristics and experiences.

Literature Review

Institutions of higher education seek out alumni immediately following college graduation in hopes of encouraging graduates to give back to their alma mater. Although there is extensive literature on charitable giving only a small subset of this literature focuses on giving to higher education. An even smaller subset of the literature addresses donating to liberal arts colleges. By assessing the literature throughout a variety of areas, the common characteristics of alumni giving can be found within the following areas: income, age, and gender volatility, athletics, and personal involvements.

Income, Age, and Gender Volatility

Income and wealth are among the most consistent predictors of alumni giving. Increased giving is commonly associated with greater personal and family income. High-income families tend to have a greater variation in their income from year-year, which may be the reason for the variation of giving (Baade & Sundbuerg, 1996). Auten and Rudney (1990) focused on the variability of income using a 5-year average as a measure of permanent income and permanent giving. Their results showed that charitable giving presents a high degree of variation across households of similar income and over time within households. The variation in charitable giving increases significantly with the level of income. They speculate that the irregular nature of giving, particularly prevalent in high income families, may be due to the increased recognition that comes from making a significant contribution. This data is more applicable, again, for the higher income donors and implies that giving may not respond immediately to income changes (Auten & Rudney, 1990).

Using a pooled micro-data random sample, Okunade, Wunnava, and Walsh (1994) observed the relationship between age and giving at a large public university. They concluded that the difference between men's and women's giving is not statistically different. Furthermore, non-fraternity members and graduates of business school gave significantly more cash gifts relative to the rest of the sample. Within their analysis of the time dimension of alumni giving, the data illustrated correlation between the growth rate of donations and the age-income profile. At the age of retirement, the donation growth rate became negative, showing a decline in donations as age increases. Specifically, the study found donations to decline at the age of 52. Due to the time constraint presented by the retirement age, institutions of higher education have an "end point" to beat in order to maximize alumni giving before the connection and willingness decrease completely (Okunade, Wunnava & Walsh, 1994).

Andreoni, Brown, and Richall (2003) expand on the role gender plays in charitable giving by examining the differences in propensities to give to different types of nonprofit organizations between males and females, single versus married. Research indicated that males tend to concentrate their giving among a few charities focused toward adult recreation, while females are more likely to give across a wide range of charities geared toward human services and education organizations. With regard to marital status, once married, the decision on whom to give usually mirrored the husband's preferences. Since the male typically earns more than the female, the giving decision was unsurprising (Andreoni, Brown & Rischall, 2003).

Athletics

The common belief is that athletes develop stronger ties with their alma mater than non-athletes and thus are more likely to be generous givers. Holmes, Meditz, and Sommers (2007) utilized information on the winning percentage of the men's ice hockey and football teams from Middlebury, a private DIII liberal arts college, to identify the years in which these teams won championship titles. Their findings indicate that former athletes are more likely to contribute than their non-athlete counterparts; but older alumni who were athletes as undergraduates are significantly less likely to give and marginally less generous than their younger counterparts. One of the most significant results that Holmes, Meditz, and Sommers found is that football players are 9% more likely to donate than non-athletes, while hockey and non-football players are 23% more likely to give than non-athletes. For some smaller institutions, the hockey program fills the void of a football program, creating a significant affect on alumni giving. Therefore, it will be intriguing to see if greater donations from hockey players carry over when football is not present on a campus, similar to the situation present at Colorado College.

Bowen and Levin's book, "Reclaiming the Game: College Sports and Educational Values," uses data from more than 30 of the nation's most selective institutions to derail the common beliefs of athletics and alumni giving. For example, they show that athletes are not more likely to assume leadership roles after graduation. Their data also indicates that athletic recruiting does not strengthen the socioeconomic or racial diversity among the student body. The most relevant result they present is that although older generations of athletes are more generous than their non-athlete counterparts, more recent athlete cohorts are actually less financially committed to their alma mater (Bowen & Levin,

2003). This contradicts the findings of Holmes, Meditz, and Sommers; but overall the extant literature has not reached a clear consensus on the relationship between athletic success and alumni giving. Some studies have shown a positive association between athletic success and alumni contributions while others report no relationship or a positive relationship only for former athletes or those at Division III schools.

Involvement/Identification

Alumni's giving has been found to be strongly correlated with student experiences. According to the sociological literature these personal connections help determine the pattern and amount of individual giving (Schervish & Havens, 1997). According to Clotfeler (1999), there is a connection between an individual's experience with the institution and giving behavior. By utilizing data of three entering cohorts of college students at thirty-four colleges and universities, Clotfeler found that satisfaction was consistently related to several aspects of college experience. Whether the person had attended a public high school, whether the college had been the person's first choice, and whether there was someone who took a special interest when he or she was enrolled there significantly affected satisfaction. Another big predictor of the level of alumni donations was strongly associated with whether or not the person graduated from the institution where he or she first attended college. Those who graduated from liberal arts colleges tended to give more than those who attended universities. These factors allowed Clotfeler to conclude that people give to causes and organizations that have personal meaning to them. The specific type of on campus club or group that students choose to be involved in does not matter since all organizations provide a basis for students to learn about institutional needs. It is more important for alumni to develop an attachment to their alma

mater because this has shown to significantly increase alumni donations (Schervish & Havens, 1997).

To reiterate this relationship even more, Bruggink and Siddiqui (1995) observed the financial giving of alumni at a small, private liberal arts college over a 23-year period to identify characteristics of alumni-influenced alumni giving. They identified the following characteristics of alumni as some of the most important to donating: volunteering for the college, major in the social science division, language school attendance, residence in states with alumni chapters, employment within the financial sector, and alumni with relatives who have attended the college. Additionally, they found that during the time period surrounding class reunions help alumni reconnect with the organizations that they were involved in during school, leading to an increase in alumni donations during these times (Bruggink & Siddiqui, 1995). Generally, all the literature on the subject of alumni giving and student experiences found that donors must develop a sense of attachment and identification through group participation because it provides the infrastructure for communicating institutional needs and socializing them to respond (Schervish & Havens, 1997).

Although income and wealth are among the most consistent predictors of alumni giving, student experience and involvement seems to be the true predictor if students will donate post graduation. People donate to things that they have a strong connection with, typically a club or group on campus. What is interesting is that athletics is considered a group, yet athletes typically donate the least at times. As much as income is helpful in donating researchers have concluded that a deeper connection is needed in order for donations to stay consistent post graduation. These factors are some of the things that

researchers can actually find data for. There are other factors that effect alumni giving that is almost impossible to find data for.

Theory

Informational education, tax deductions, and altruism, are the three factors that researchers struggle to account for when examining alumni giving. The reason being is that it is difficult to empirically account for the strength of a school's development office, a schools' knowledge of alumnus whereabouts and other personal attributes that are more psychological than economic. As troubling as these factors may be, they can greatly affect who and how much someone donates. Therefore they should be recognized and not pushed aside.

Education

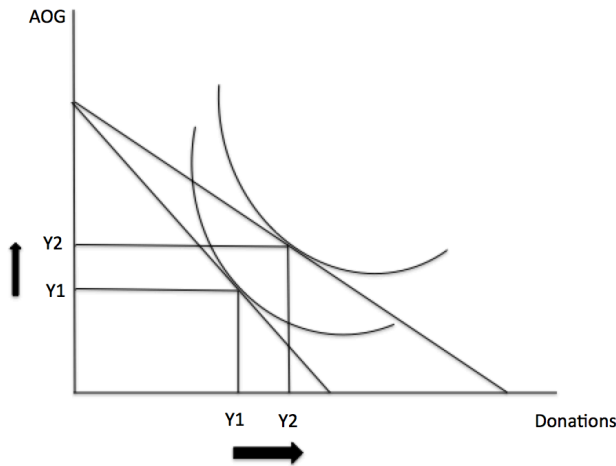
For higher education institutions to receive donations it does not solely depend on the alumni, but also on the school itself to be a fundraising machine. They must perfect the art of fundraising and know how to make alumni feel the perfect amount of guilt and responsibility to donate. In order to make that a reality schools must educate their current students and alumni on why giving back to the alma mater not only matters but benefits all parties involved with the school past and present.

According to Freeland, Spenner, and McCalmon (2015) young alumni are often overlooked because they have lower participation rates and giving capacity compared with older donors. However, they have found that early patterns of giving small amounts could yield significant long- term returns. Typically these small donations begin with the senior class gift, because this campaign helps educate, inform, and spark a sense of pride within the class and toward the school. Thus if students give to their senior gift it was extremely likely that they would donate again in the future. Although their donations maybe small immediately after graduation, it is the desire to form a habit of donating

back to the school, so when alumni become older and acquire more money their donations to the school will increase. This small but continuous increase in donations is shown in figure one, where the graph illustrates how all other goods stay the same while donations increase. This slight increase demonstrates how by having students donate during senior year it sparks their affinity to the college, therefore over time the donations and affinity towards the college increases.

Educating young alumni on why donating is important is a hard thing to account for, because there is no data on the strength of an alumni office, and how vital a role they play in alumni donations. Despite the quality of an alumni office there will still be students who do not contribute to the senior gift campaign despite repeated, in-person solicitations from peers causing a constant percentage of alumni that are less likely to donate after graduation.

Figure 1 Relationship Between Education and Donation



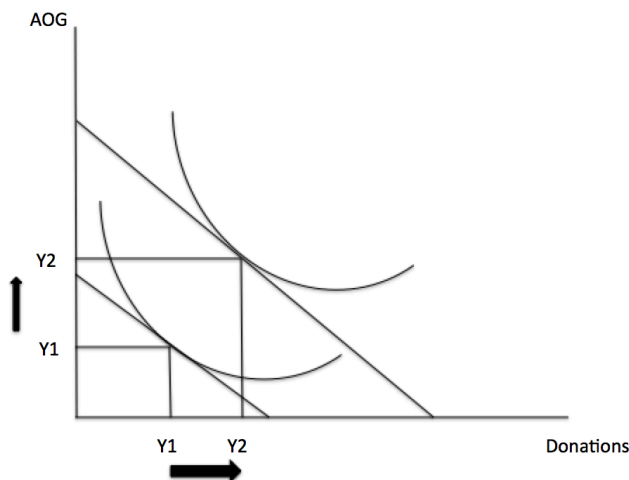
Tax Deductions

One thing that can potentially sway any ‘nay’ sayer is the availability of tax deductions for charitable giving. Holmes utilized 15 years of detailed data on alumni

donations to a private liberal arts college to explore if and how tax induced subsidy have an effect. The results suggest that state charitable tax deductions are correlated with higher giving, but only among the wealthiest of its citizens (those most likely to itemize and to face the highest marginal tax rates) (Holmes, 2009). The relationship of tax deductions and major increases in donations is seen in figure two. This graph illustrates the increase of donations and all other goods with the presence of tax deductions.

Alumni with median incomes in their zip code of at least \$95,000 have a 6% or greater likelihood of donating to their alma mater if they live in a state that allows charitable tax deductions. For the wealthiest alumni tax deductions tend to encourage giving, because they are most likely to itemize and to face the highest marginal tax rates. For alumni living in states with charitable deduction allowances and with low incomes are 5% less likely to donate to their alma mater. The reason for this drop in donating is because the impact of the state subsidy is largely concentrated on the wealthiest alumni. Although Holmes found a positive correlation with tax subsidies and giving, Clotfelter (1976) found no relationship between tax- defined price of giving and alumni donations. He did find limitations with his data, that “the imprecision implicit in calculating the marginal tax rate has biased the coefficient toward zero.” Overall it will be hard to determine if tax subsidies have an effect if the college does not have up to date information on where alumni live. This would make it hard to push alumni from the direction of ‘saving’ money by donating if the development office has no clue where alumni are.

Figure 2 Relationship Between Tax Deduction and Donation



Altruism

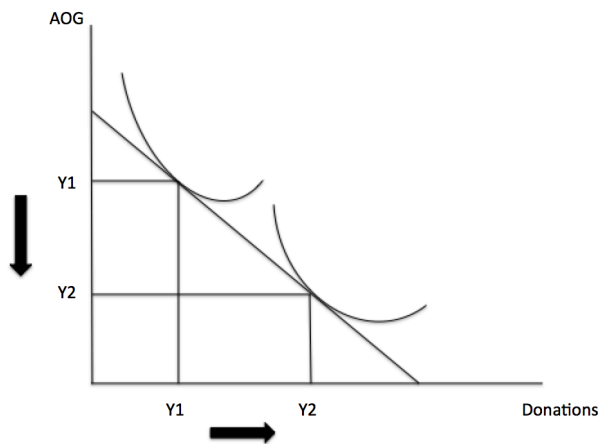
One of the biggest factors of charitable giving is altruism. Defined as the belief in or practice of disinterested and selfless concern for the well being of others. Researchers have found positive and negative correlations with altruism and giving, but overall the consensus is that people typically give more when they know who else is also donating in order to show they have more wealth than their peers.

Reyniers and Bhalla (2013) found that there are motives other than altruism for pro-social behavior. The Virgin Money Giving website set up in 2010, allows users to create personalized webpages dedicated to fundraising events, personal challenges or other special occasions and share those pages with friends and relatives. The results showed that the main driver of giving or helping behavior is an emotion like empathy or sympathy or compassion. The extent to which these emotions are felt depends on a number of factors, including one's own personal state, past experience, proximity, similarity and vividness. Most importantly people use these websites to broadcast their contribution to society: emailing friends and relatives and asking them to donate directly to charity would not provide such publicity or boasting opportunity. Altruism can be

instrumental in signaling wealth or status. This is seen in figure three where the graph shows a dramatic drop in all other goods because the money going toward the increase in donations.

Collard (1978) is firmly in the egoistic camp, arguing that the ultimate goal of giving is only benefit to the self. The more one donates the more one is able to boast about it. There is also ample evidence that peer pressure or even the mere knowledge that others are contributing increases contributions. Showing prospective donors a list of previous donors increases compliance and donations. People want to donate only when they know their peers are as well. Andreoni and Petrie, and Rege and Telle find that unmasking subjects and their donations in a public good game significantly increases contributions. If a schools' development office does not do a good in engaging the alumni and creating that sense of competition it could and will cause a drop in alumni engagement thus donations.

Figure 3 Relationship Between Altruism and Donation



Data and Methodology

Over the years colleges have discovered that the more in depth tabs they keep on their students during their time on and off campus, greatly increases their ability to connect with alumni on a deeper level. Luckily as technology has advanced, the easier it has become to keep detailed up to date databases. This revolution is not a new thing; every college campus has an administrative records database that starts cataloging information on its students the moment they apply. In order to conduct this project I utilized Colorado College's administrative records database.

Timeline of the Dataset

The current study examines Colorado College's alumni donations between the graduating classes 2000-2015, for a total of fifteen years. The reason the model presented focuses on this fifteen-year period is to maintain the focus on young alumni. Young alumni are typically unstable in the sense of occupation, and location, thus their income is unreliable causing donations to be sporadic and minimal.

In the last ten years Colorado College has strived to educate senior classes on why donating to their Alma Mater matters by initiating senior gift campaigns to instill a sense of responsibility to give back. Even with these programs and the advancements in database technology there are still difficulties to track down young alumni and connect with them on a deeper level.

The model focuses on the relationship and trends between young alumni's attributes of their current and undergraduate life versus their donation habits. The model presented is as follows, with the dependent variable on the left side of the equation and the independent variables on the right.

$$\text{Give2yr} = \text{AlumWhite} + \text{AlumFemale} + \text{Married} + \text{CCSpouse} + \text{AlumGreek} + \text{AlumAthlete} \\ + \text{AlumEmail} + \text{SocSci} + \text{NatSci} + \text{ArtHum} + \text{CashDon} + \text{EducExp} + \text{MedInc}$$

Dependent Variable

The only dependent variable in this model is Give2yr, which examines the consistency of alumni giving within 2-year periods. This variable contains a, 0, 1, or 2 marking within the dataset, illustrating if the alumni has donated zero times in two years, only in the first year, or gave during both years. The result of this variable heavily depends on the independent variables, but with these results it will help determine what factors push young alumni to donate more than others. Therefore it would have the potential to increase young alumni interaction, and donations at Colorado College.

Independent Variables

There are a wide variety of independent variables that could have been used for this model, but the variables that have been chosen have also been utilized in other research for various colleges to help describe the attributes of an young alumni that is most likely to donate.

While some independent variables are self-explanatory and somewhat expected like, AlumFemale, and Married. Which determine if an alumni is female, and marital status of alumni, other independent variables are not as easily understandable in their condensed titles or reason of being in the model. An initial tell to determine an alumni's affinity toward the college is if they provide the school with their non-school email address. With this information it tells the school that the alumni wants to stay connected and updated on the college. This is tracked with the variable AlumEmail.

Colorado College has an abnormally high intercollege marriage rate, thus making the use of a CCSpouse variable a potentially big determinate of donation rate. While AlumGreek and AlumAthlete help determine the importance of being involved in Greek life and athletics are on donations.

The majors at Colorado College were spilt into three variables, SocSci, NatSci, ArtHum. SocSci stands for social science, which encompasses economics, anthropology, history, political science, psychology, and sociology. While NatSci, short for natural science includes: physics, mathematics, chemistry, and biology. Leaving ArtHum, which stands for art humanities to contain art, theatre, philosophy, and languages. Splitting the majors into three sections will help determine if certain genre of majors have a bigger affect on alumni donations.

The last three independent variables focus more on the average of the neighborhoods young alumnus reside in post grad. MedInc examines the average income, CashDon is the philanthropy proxy exhibiting the average amount that is donated to philanthropy in a year, and EducExp is the education importance proxy, which examines the average household expenditures on education in a year. Colorado College faces some outside problems that cause them to not be able to keep full up to date data on where young alumni are residing. Therefore These three independent variables are used to help determine the area where alumni live based on their income, giving and spending habits, which helps the model better determine why certain alumni donate more.

Results and Analysis

As previously stated above, this model utilizes fifteen years of data to determine how likely specific groups of alumni are to donate within two years of graduation. Before the results can be analyzed, the correlation matrix is checked to ensure the model is balanced and presentable. Appendix A shows that all levels of correlation among the independent variables are acceptable, ensuring that no two variables are too closely related.

Regression Results

Table 2 OLS Regression Results

Give2Yr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
AlumWhite	.0348876	.0145459	2.40	0.016	.0063743	.0634008
AlumFemale	-.0142362	.0123198	-1.16	0.248	-.0383857	.0099133
Married	.1491478	.0198837	7.50	0.000	.1101713	.1881243
CCSpouse	.0896407	.0355784	2.52	0.012	.0198992	.1593822
AlumGreek	.0860301	.021621	3.98	0.000	.0436481	.1284121
AlumAthlete	.0908777	.0127806	7.11	0.000	.065825	.1159305
AlumEmail	.2345774	.0160501	14.62	0.000	.2031155	.2660392
CashDon	-.0000619	.0000386	-1.61	0.108	-.0001375	.0000136
EducExp	.0000715	.0000285	2.50	0.012	.0000155	.0001274
MedInc	-8.98e-07	3.57e-07	-2.52	0.012	-1.60e-06	-1.98e-07
SocSci	.1206874	.0176843	6.82	0.000	.0860222	.1553525
ArtHum	.1034855	.0190837	5.42	0.000	.0660773	.1408938
NatSci	.1400842	.0189854	7.38	0.000	.1028686	.1772998
_cons	.0041788	.0380595	0.11	0.913	-.0704263	.0787839

Table 2 provides the results from the regression. Overall, what alumni were involved in during their time at school matters more than their post-grad income. In the model there are ten factors associated with why young alumni donate. Five of the ten factors stand out significantly. If an alum provides an email address to Colorado College they are 0.23 percentage points more likely to donate. If the alumni are married they are

0.15 percentage points more likely to donate. If an alumnus was a Natural Science major they are 0.14 percentage points more likely to donate. Similarly, if an alumnus was a Social Science major they are 0.12 percentage points more likely to donate. Finally, if the alumnus was a Art Humanities major they are 0.10 percentage points more likely to donate. All five of these variables are significant at the 1% significance level.

Although the positive factors outweigh the negative factors, the three negative factors also provide strong results. For every dollar increase in median income an alumni is 0.000000898 percentage points less likely to donate. Furthermore, being a female decreases the likelihood of donating by 1.4 percentage points. A one-unit increase in cash donations decreases the likelihood of donating to your alma mater by 0.0000619 percentage points.

Discussion

It was not surprising that alumni who were more involved in school were more likely to donate postgraduate. More surprising was the ranging differences in donations related to a student's on-campus involvement. Since students typically develop a sense of attachment and identification through group participation it was assumed that the highest probability of donors would come from athletics or Greek life. This differs at Colorado College since only 15% of students are athletes, 5% are affiliated with Greek Life, and 25% are involved in various other groups and clubs. The one thing that everyone has in common is their class schedule, which is held for a minimum of three hours, five times a week with small class sizes that revolve around group work. The routine schedule practically forces students to engage and create deep connections with fellow classmates in their major. Ultimately, this makes a student's major their closest attachment and

provides a reason to donate.

Outside of coursework and school activities, marital status, income, and gender all play a vital role in who donates. Alumni who are married had the highest probability of donating, and if they married another Colorado College alum the high rate of donating remained the same. Married couples typically have a combined higher income thus allowing them to have greater funds to donate. Within this study it was found that average median income had a negative affect on the probability of donating. Although surprising, this result shows that alumni residing in neighborhoods with lower average median incomes are actually more likely to donate. Since this study only focuses on young alumni right out of college, the neighborhoods they live in are likely to vary over time. If an alumnus is married, and their spouse donates to a charitable organization, they will likely feel the pressure to donate to their own organization. For the majority of post grads, their strongest connection with an organization will be with their alma mater. Regardless of the factors above, females are less likely to donate. One possible reason is that on average women notoriously make less than men. Although this is true, the real reason why this occurs at Colorado College is unclear.

Many of the results presented above are similar to other studies, but also provide a variety of differences due to the uniqueness of Colorado College. Colorado College is an institution that provides multiple aspects that cannot be accounted for at schools where similar research has been conducted.

Limitations

In order to determine the full effects each school and postgrad involvement has on the probability of alumni donating, I would need to think more about the size and data that was available. It is difficult to judge young alumni as a whole when year-to-year the education of the senior class on the importance of donating varies depending on the advancement office and the senior class gift campaign. These campaigns can create strong giving habits post-college that allow alumni to give overtime. Most importantly, the bonds and feeling of connection to Colorado College is constantly changing with every event that occurs on campus.

To account for these factors I would start by following one graduating senior class for up to ten years. This class will have a detailed database on everything each student has been involved in throughout his or her four years. There will be an updated address book for every student once they have graduated college. Furthermore, a detailed record of the success of their senior class gift campaign and the types of campaigning that has been done post grad will be provided. Most importantly, before students graduate they will fill out a survey to help determine how connected and attached they feel to their classmates and Colorado College itself. They would then retake the survey every five years.

Conducting more in-depth research on one specific class would help determine what factors truly effect young alumni donations.

Conclusion

Alumni donations continue to play a vital role in a school's success, but since their role is solely volunteer based the school is faced with the never-ending challenge of determining why alumni do or do not donate. Earlier studies have shown that if young alumni donate then they will be more likely to continue to donate the older they become. Young alumni are unstable out of college because they are typically making small salaries, constantly moving, and trying to pay off student loan debt. With all of these factors against them, there are still a small percentage of young alumni who donate.

Certain studies have examined the characteristics of alumni who donate to their alma mater, but few have focused on young alumni especially at a small, private liberal arts college like Colorado College. I focused my research on attributes and activities a student may be involved in during their time at school such as Greek life, Athletics, and major choice. Additionally, characteristics like the average median income of the neighborhoods they reside in, marital status, and the information they provide to the school are included to help explain the post grad lives of alumni. These variables are important to the study because they help encompass the past and present of young alumni.

The data for my model includes information from the Colorado College administrative database for young alumni from 2000-2015. After looking at the results from the OLS regression, it was determined that the activities an alum was involved in at school had more of an effect on young alumni giving than their post grad attributes. The most notable results from the model was the dummy variables determining if an alumni gave the school their updated post grad contact information. If they did provide this

information, they are 0.23 percentage points more likely to donate in zero to two years. Married alumni are 0.15 percentage points more likely to donate, and if the alum was a Natural Science major they are 0.14 percentage points more likely to donate within two years. Another prominent find was the negative results of median income. Past research suggests the higher the income the more likely someone is to donate, but that is not the case for young Colorado College alumni. My research revealed that for every dollar increase in average neighborhood income an alumnus is 0.000000898 percentage points less likely to donate.

In conclusion, it doesn't matter what young alumni are involved in post grad because the strength of their bond and connection to their alma mater is cultivated during their time in school. This ultimately pushes young alumni to want to be involved with Colorado College after graduation. Thus the likelihood of them providing the school with their current contact information, allows their bond to intensify making young alumni more likely to donate.

Appendix A: Correlation Matrix

```

.
. //CORRELATION MATRIX
. pwcorr AlumWhite AlumFemale Married CCSpouse AlumGreek AlumAthlete AlumEmail C
> ashDon EducExp MedInc SocSci ArtHum NatSci

```

	AlumWh~e	AlumFe~e	Married	CCSpouse	AlumGr~k	AlumAt~e	AlumEm~l
AlumWhite	1.0000						
AlumFemale	-0.0710	1.0000					
Married	0.0134	0.0520	1.0000				
CCSpouse	0.0217	0.0137	0.3901	1.0000			
AlumGreek	0.0212	0.0747	0.0046	0.0101	1.0000		
AlumAthlete	0.1222	-0.1364	-0.0944	-0.0257	0.0559	1.0000	
AlumEmail	0.0870	0.0147	0.0579	0.0238	0.0763	0.1550	1.0000
CashDon	0.0947	-0.0506	-0.0041	-0.0064	0.0355	0.0663	-0.0142
EducExp	0.1086	-0.0682	-0.0292	-0.0116	0.0454	0.0944	0.0013
MedInc	0.0766	-0.0505	-0.0141	-0.0137	0.0378	0.0681	-0.0217
SocSci	0.0376	-0.0460	0.0106	0.0227	0.0907	0.0884	0.1224
ArtHum	0.0474	0.0499	-0.0437	-0.0230	-0.0089	-0.0210	0.0771
NatSci	0.0671	-0.0661	0.0188	0.0213	-0.0027	0.1232	0.1275

	CashDon	EducExp	MedInc	SocSci	ArtHum	NatSci
CashDon	1.0000					
EducExp	0.9357	1.0000				
MedInc	0.8862	0.9228	1.0000			
SocSci	0.0139	0.0202	0.0087	1.0000		
ArtHum	-0.0078	0.0103	0.0034	-0.3634	1.0000	
NatSci	-0.0047	-0.0036	-0.0147	-0.3901	-0.2912	1.0000

References

- Andreoni, J., Brown, E., & Rischall, I. (2003). Charitable giving by married couples: and why does it matter?" *Journal of Human Resources*, 38(1), 111-133.
- Auten, G., & Rudney, G. (1990). The variability of individual charitable giving in the US. *Voluntas*, 1(2), 80-97.
- Baade, R. A., & Sundberg, J. O. (1996). What determines alumni generosity? *Economics of Education Review*, 15, 75-81.
- Bhalla, R., Reyniers, D. (2013). Reluctant Altruism and Peer Pressure in Charitable Giving. *Judgment and Decision Making*, 8(1), 7-15.
- Bowen, W. G., & Levin, S. A. (2003). Reclaiming the game: College sports and educational values. Princeton, NJ: Princeton University Press.
- Bruggink, T. H., & Siddiqui, K. (1995). An econometric model of alumni giving: a case study for a liberal arts college. *American Economist*, 39 (2), 53–61.
- Clotfelter, C. (1976). Tax Incentives and Charitable Contributions in the United States. *Journal of Public Economics*, 5, 1-26.
- Clotfelter, C. T. (1999). The familiar but curious economics of higher education: introduction to a symposium. *Journal of Economic Perspectives*, 13(Winter), 3–12.
- Collard, D. (1978). *Altruism and Economy*. Oxford University Press, New York.
- Freeland, R.E., Spenner, K.I., & McCalmon, G. (2015). I Gave at the Campus: Exploring Student Giving and Its Link to Young Alumni Donations After Graduation. *Nonprofit and Voluntary Sector Quarterly*.
- Holmes, J. (2009). Prestige, Charitable Deductions and Other Determinants of Alumni Giving: Evidence from a Highly Selective Liberal Arts College. *Economics of Education Review*, 18-28.
- Holmes, J. A., J. A. Meditz, & P. M. Sommers. (2007). Athletics and Alumni Giving: Evidence From a Highly Selective Liberal Arts College. *Journal of Sports Economics*, 538-52.
- Okunade, A. A., Wunnava, P. V., & Walsh, R. Jr. (1994). Charitable giving of alumni: micro-data evidence from a large public university. *American Journal of Economics and Sociology*, 53 (1), 73–84.
- Schervish, P. G., & Havens, J. J. (1997). Social participation and charitable giving: a multivariate analysis. *Voluntas*, 8(3), 235–260.

Snider, S. (2015). US News & World Report. *10 Universities That Rake in Cash From Alumni*.

VSE Survey & Data Miner (2015). *VSE Survey & Data Miner*.