

**Does the Phi Gamma Delta
Academic Achievement Award
Affect the Fraternity's Ability to Attract
Future Donors and Volunteers?**

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Executive Summary

The Phi Gamma Delta Educational Foundation, which supports the Phi Gamma Delta Fraternity, operates a scholarship program for new members known as the Academic Achievement Award, or Triple A Scholarship. The Fraternity's recent and projected growth prompted the organization to consider changes to the program. In order to better evaluate changing the program, this study estimates the impact of the Triple A Scholarship program on two behaviors of graduate members – becoming a donor or becoming a volunteer.

More specifically, the study addresses the following two questions:

- Does receiving a Triple A Scholarship make a member more or less likely to be a future donor to the Fraternity or Foundation?
- Does receiving a Triple A Scholarship make a member more or less likely to be a volunteer (within the organization)?

Data for the analysis was obtained from the organization's membership database, including all members who joined from July 1, 1998 – June 30, 2010, capturing the 24,267 men who had joined since the scholarship's inception. Data included the individual's volunteer and donor history, Triple A Scholarship information, class year, and school attended. School and chapter characteristics were added to individual data and include incoming freshmen characteristics, tuition, enrollment, athletic conference, chapter scholarship recipient data and information on chapters which started or closed during the time period. The analysis of data included t-tests for significance of individual and institutional characteristics and a logit regression model for both donating and volunteering.

Using this model, individuals who received a Triple A Scholarship were found to be more likely to be donors. Several other variables were also found to be significant predictors of donating behavior including the individual's age, if he served as an undergraduate officer, the percent of scholarship recipients in his chapter and if he attended a school which is part of certain athletic conferences. Schools which were part of other athletic conferences were found to be significant predictors of an individual not donating, as was being a part of a chapter which had closed.

Likewise, being a chapter officer and age were significant predictors of being a volunteer, although receiving a Triple A Scholarship was not found to be significant. Individuals from schools which had a high percentage of scholarship recipients, those from certain athletic conferences and those who were part of a newer chapter were also found to be significant predictors. Those from chapters which had closed, schools with a high percentage of high ACT scores (30-36) and certain other athletic conferences were found to be significant predictors of someone not being a volunteer.

While receiving a Triple A Scholarship is one significant predictor of future donors' behavior, it should not be the lone consideration in how to modify the program in the future. Given historical data, it is unlikely that these donors will completely cover the cost of the program over time. However, the analysis shows that members who received Triple A Scholarships, were chapter officers or were from chapters with a high percentage of Triple A recipients are more likely to donate. This presents an opportunity for the Educational Foundation to better approach and attract new donors.

Introduction

The Phi Gamma Delta Educational Foundation first awarded a scholarship to new members known as the Academic Achievement Award (referred to as the Triple A Scholarship) in 1997. This scholarship recognizes that new members (primarily freshmen) and seeks to encourage them to get a strong start to their academic careers. The Foundation's claim is that, "students who start their academic careers off with high GPAs are more likely to graduate with higher GPAs and graduate from the same school [in which they started]."¹

Any man who earns a 3.0 GPA during his pledging semester (the academic term when he joins) is eligible to receive this \$250 award. Through the fiscal year ending June 30, 2010, the Educational Foundation awarded 8,172 scholarships representing just over \$2 million. During this time the Fraternity has seen a general improvement in overall academic performance among its members and believes the Triple A Scholarship is a helpful marketing tool to attract members and donors.

Today the Educational Foundation faces a challenge as it perceives recent growth of the Triple A Scholarship to be unsustainable (reference Figure A). Between FY2007 – FY2009², recipients grew at a rate of 16.6% per year, rising to a record 962 scholarships awarded to members joining in FY2009. During this same period, the Fraternity (the legally separate entity which the Educational Foundation supports) began an aggressive growth initiative and saw its number of new members grow by 11.8% annually³. The Fraternity's initiative is expected to continue through at least 2018 where its goal is to reach 170 chapters (compared to 128 at the end of 2010) with an average chapter size of 60 members (compared to 58 at the end of 2010). By 2018, the Fraternity would expect its membership to grow by more than 37% to reach its goal.

¹ Phi Gamma Delta Web Page; <http://www.phigam.org/netcommunity/aaa>

² July 1, 2006 – June 30, 2009; FY2010 data for scholarship awards is incomplete and not included

³ Factoring in FY2010, this growth rate is 10.6%

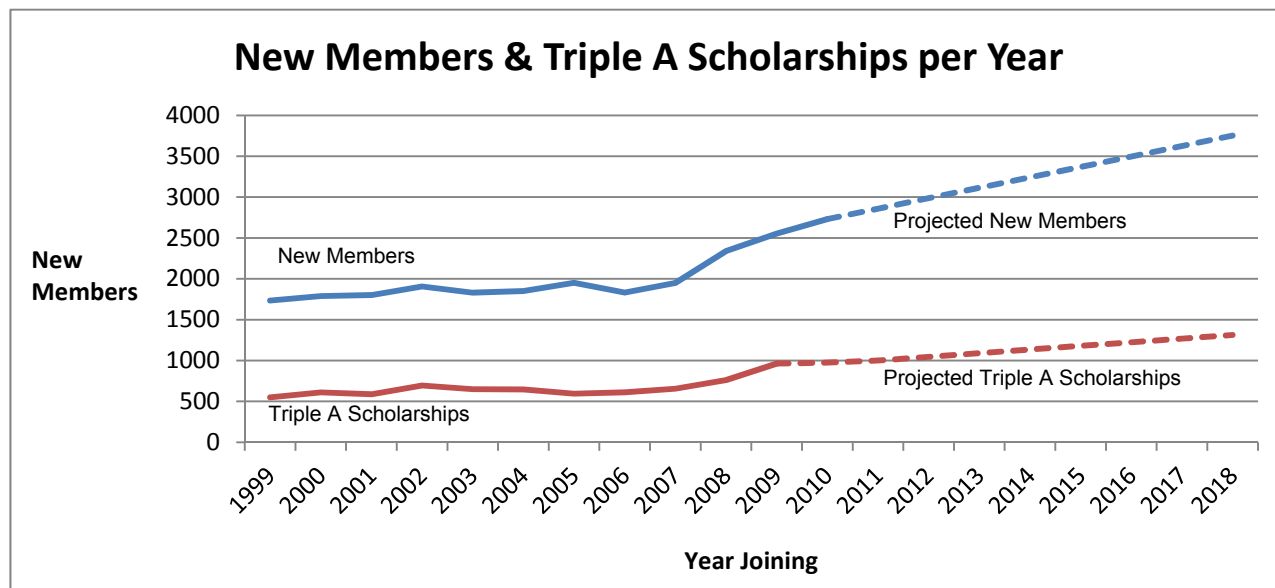


Figure A: Past and projected number of new members and Triple A Scholarships awarded
 Source: Calculated from Phi Gamma Delta data

This growth in the Fraternity’s membership has caused the Educational Foundation to more closely examine the Triple A Scholarship program. Several changes are being considered, including raising the GPA requirement thus reducing the number of recipients. These changes would affect the Fraternity, Foundation, chapters and individual members.

The purpose of this study is to examine the effect the Triple A Scholarship has on recipients’ post-graduation behavior. Given the data available from the Fraternity and Foundation, the research questions this study sought to answer were:

- Does receiving a Triple A Scholarship make a member more or less likely to be a future donor to the Fraternity or Foundation?
- Does receiving a Triple A Scholarship make a member more or less likely to be a volunteer (within the organization)?

This paper outlines the relevant background information needed to understand the organization and the scholarship program, as well as the challenges faced. I will then provide the data collection and analysis techniques used and results obtained. Lastly, a discussion of the implications of the study is provided. Historical donor information is used to project future expenses and gifts associated with the Triple A scholarship. Recommendations for the program are provided to the Educational Foundation as well as areas of future study and limitations which should be considered when interpreting these results.

Background Information

It seems intuitive that student academic performance could be improved by providing incentives, so much so that, “at one time or another most parents have offered ice cream or cash for A’s on their child’s report card,” (Henry & Rubenstein 2002, p. 93). Several states have implemented merit scholarship programs which provide monetary incentives for meeting GPA requirements at in-state schools, though their results are mixed. The Georgia Hope Scholarship provides full tuition when students earn 3.0 GPAs and appears to have improved the state’s quality of education for college-bound students, but its impact on college performance is unclear (Henry and Rubenstein 2002). A similar program in Michigan, offering a one-time \$2,500 award, does not appear to be impacting student performance (McPherson and Schapiro 1998) and may be too small to create much effect (Heller and Rogers 2003).

If their impact on college academic performance is not clear, why do institutions and organizations offer merit scholarships? One retired admissions administrator argues that, “all scholarships are need-based. Either the student needs the money [to attend], or the school needs the

student and attracts them with an award.”⁴ Related research might consider this statement true as merit scholarships have a greater probability of attracting students than need-based awards (Monks 2009) and tend to have positive impacts on retention and persistence (Tinto 1993, Astin 1975, Singell 2001).

Merit scholarships may also be a predictor of future giving, as is fraternity or sorority membership. In a study limited to Vanderbilt University, students who received merit-based scholarships were more likely to donate than those who did not (Dugan et al. 2000). This study also found fraternity or sorority membership to be a predictor of future giving, which is consistent with others’ findings. (Harrison et al. 1995)

Phi Gamma Delta Fraternity and Phi Gamma Delta Educational Foundation

The Phi Gamma Delta Educational Foundation qualifies as a 501(c)3 charity and exists to support the Phi Gamma Delta Fraternity, a men’s social fraternity with chapters at college campuses across the US and Canada. The Fraternity is a legally separate entity from the Educational Foundation. The Fraternity is comprised of 130 chapters on college campuses, but organized through a central governing body and business office located in Lexington, KY.

The Educational Foundation solicits donations from alumni members which are tax deductible, but must be used for specific purposes as defined by the IRS. In addition to operating scholarship programs such as the Triple A Scholarship, the Foundation supports the Fraternity by providing grants for expenses permitted under federal tax code, such as alcohol education, leadership development, service / philanthropic pursuits and academic initiatives.

⁴ Telephone conversation with John Albright, EdD. Retired Senior Associate Director of Admissions at The University of Georgia.

The Fraternity began an aggressive growth initiative in 2006 seeking to add 8-10 chapters per year as well as increasing the average size of each chapter. This is pertinent to the growth of the Triple A Scholarship for two reasons:

1. Growth of chapters equates to more new members added, thus increasing the number of potential scholarship recipients.
2. When a new chapter is added, its initial membership is recruited by Fraternity staff using academic performance as a key criterion. As such, new chapters tend to consist of men with high academic averages, resulting in a high percentage of Triple A Scholarship recipients.

The Triple A Scholarship

The Fraternity’s members and staff perceive the award to be beneficial in many respects. Though it cannot be directly attributed to the scholarship, Phi Gamma Delta has seen a general improvement in academic performance since the inception of the Triple A Scholarship program. The Fraternity’s average grade point average was a 3.03 in 2010, rising from a 2.86 in 2001 (the earliest data which is available). The program is viewed as a beneficial marketing tool to new recruit members. The Educational Foundation also finds it attractive to donors; several chapters’ graduates have created separate funds to match (double) awards for the undergraduates of that chapter.

**Table 1
Annual New Members & Scholarship Winners**

	New Members	Triple A Scholarships	Percent scholarship winners
FY99	1735	550	31.7%
FY00	1789	611	34.2%
FY01	1800	587	32.6%
FY02	1907	695	36.4%
FY03	1830	649	35.5%
FY04	1850	645	34.9%
FY05	1952	594	30.4%
FY06	1832	610	33.3%
FY07	1950	656	33.6%
FY08	2339	762	32.6%
FY09	2552	962	37.7%
FY10*	2731	851	31.2%
TOTAL	24267	8172	33.7%

**FY10 Scholarships awarded information incomplete*

Table 1 shows the annual number of new members who joined the Fraternity and the number of scholarships awarded. As indicated, the number of new members and scholarships awarded has

increased annually, while the percentage of members receiving the award has remained fairly constant (about one-third of new members). It is this growth that has caused the Educational Foundation to question the sustainability of the program.

At the same time, questions have risen regarding the 3.0 standard used for qualification. At its inception a 3.0 GPA seemed to be a lofty goal for students to achieve. During the 1999-2000 academic year the Fraternity’s average GPA was a 2.89. However, this average has risen to a 3.03 during the 2009-2010 academic year⁵. This has caused the staffs and boards of both the Fraternity and Foundation to consider raising the GPA needed to qualify for the scholarship.

Raising the GPA requirement should reduce the number of recipients and thus the cost of the program. Table 2 shows the GPA ranges of Triple A Scholarship winners for the last 5 years. Using the number of recipients from FY09, increasing the requirement to a 3.1 would reduce the number of recipients by 134 (from 962 to 828), a savings of \$33,500. Increasing the requirement to a 3.2 would reduce the number of recipients by 213, or \$53,250. Figure B shows how these requirement changes would have affected the cost of the Triple A Scholarship program (not including administrative costs) between FY06 and FY10 (July 1, 2005 – June 30,2010).

**Table 2
GPA Ranges of AAA Winners**

GPA Range	% of Winners
3.0 – 3.094	13.9%
3.1 – 3.195	8.2%
3.2 – 3.295	11.4%
3.3 – 3.393	9.3%
3.4 – 3.49	10.3%
3.5 – 3.591	10.6%
3.6 – 3.69	8.6%
3.7 – 3.792	8.3%
3.8 – 3.89	7.2%
3.9 – 3.97	3.3%
4.0 +	8.6%

n=3,712

Source: 2005-2010 Foundation records

⁵ Calculated from Phi Gamma Delta Chapter GPA records

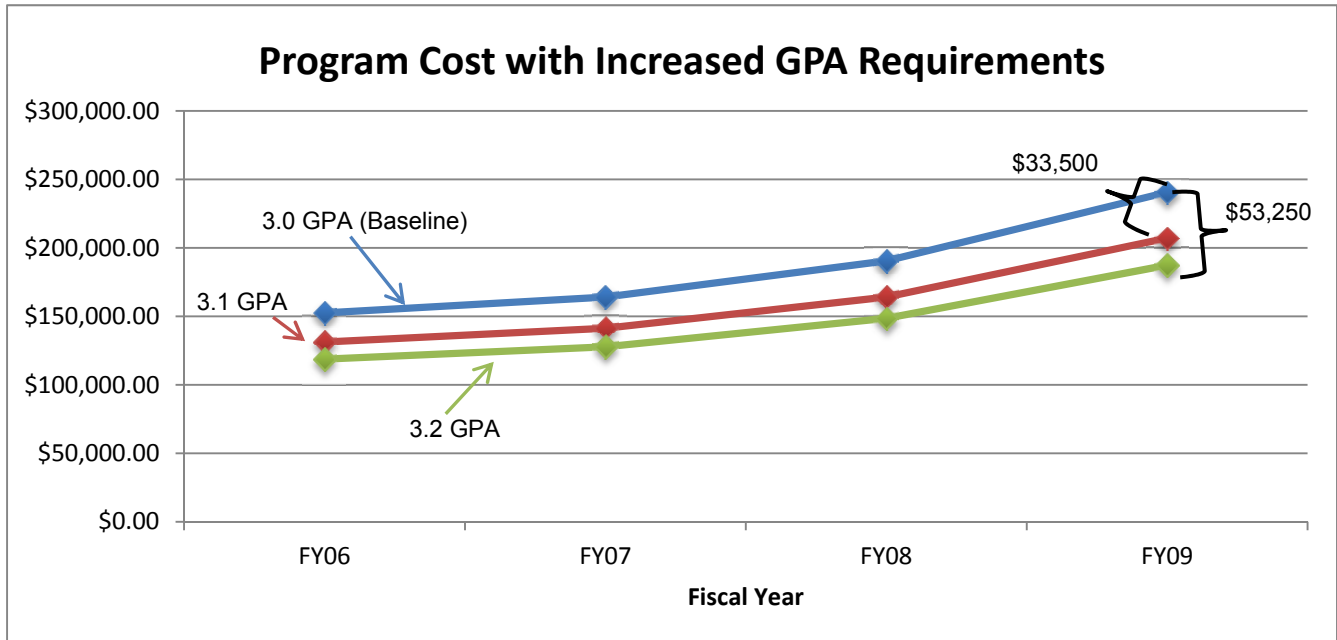


Figure B: Potential Savings with GPA Requirement Increase

*Calculated from Phi Gamma Delta Educational Foundation Data
 FY10 scholarships awarded information may be incomplete

Research Design

The primary data for this study was obtained from the joint membership database of the Phi Gamma Delta Fraternity and Educational Foundation. It includes all members who joined between July 1, 1998, and June 30, 2010, and includes all information known up to the time the data was accessed in February of 2011. There were a total of 24,267 observations obtained (each representing a separate member). The following information was included for each individual:

- constituent ID (a unique identification number)
- School name and class (graduation) year
- Triple A Scholarship Recipient (yes / no)
- Elected officer while an undergraduate (yes / no)
- Serve in a volunteer role as a graduate (yes / no)
- Dates and amounts for any donations made to the Fraternity or Foundation

In addition, information was gathered for each college or university represented in the sample and overlaid onto each individual observation (to match the individual's college/university). Where available, the following information was obtained from the 2009-2010 Common Data Set provided by each institution:

- Public or Private institution
- Undergraduate Enrollment
- Tuition (2009-2010 tuition only; fees not included)
- Percent of incoming freshmen with ACT scores between 30-36
- Percent of incoming freshmen with ACT scores between 24-29
- Percent of incoming freshmen in the top ten percent of their high school class
- Percent of incoming freshmen in the top twenty-five percent of their high school class
- Average high school GPA of incoming freshmen

The following was also added:

- Athletic Conference (of the school)
- If the chapter had closed during the time span (from Phi Gamma Delta records)
- If the chapter had started during the time span (from Phi Gamma Delta records)
- Spring 2010 all-men's GPA of the school (from Phi Gamma Delta records)
- The percent of Triple A recipients by school
- The total number and average gift size of donors (calculated from given data)

Finally, there were some manipulations made to better analyze the data. First, some students were listed who would not have been eligible for the scholarship because they had left the chapter before becoming a full-fledged member for non-academic reasons. Additionally, some chapters had both closed and later started as a new chapter during the time span studied. Because chapter characteristics are meant to capture variance which might exist because of the nature of the chapter, and these would represent two different groups with different characteristics, these are considered separate chapters (ex: University of Iowa I, University of Iowa II). Appendix I contains a full explanation of all variables used.

This information was then analyzed in a way to measure the Triple A Scholarship's potential impact on future activity of being a donor or volunteer, considering all other measurable variables for

individual, chapter and school. I first examined simple summary statistics and hypothesis testing (t-testing) for both donors and volunteers to identify potentially significant variables. To estimate the influence of a particular characteristic (most notably the Triple A Scholarship) on the likelihood of an individual being a donor or volunteer, I used a logit regression model.

The model on its own does not account for the possibility that students from the same school (chapter) may share some portion of the unexplained variance. For instance, there may be some unobservable trait which exists in members of a chapter and is more likely to make those individuals receive a Triple A Scholarship, be a donor and a volunteer. Measured qualities exist in the school and chapter data to explain this, such as high percentages of incoming freshmen with high ACT scores (a 'higher caliber' school), a chapter closing (where the chapter deteriorates to a point that is no longer viable or individuals are the cause of problems on campus) or a chapter starting (where high caliber students are purposely recruited). However, to help account for this possibility, the standard errors were clustered by school. The results of this analysis are detailed in the next section.

Report of Analysis and Findings

As it was important to first understand the nature of the data, summary statistics are provided in Tables 4 and 6 for all variables used in the model. In addition, t-tests were run on each against donors and volunteers. Of the 24,267 individuals contained in this dataset, 33.7% were recipients of the Triple A Scholarship, 11.0% were donors to the Fraternity or Foundation and 2.3% served as volunteers.

Class years of the individuals are fairly evenly distributed between 2002 and 2013. Much fewer are in the classes of 1998- 2001 and 2014-2015. Considering school and chapter characteristics, nearly 71% came from a public school (versus private), 14% were members of a chapter which closed between 1999 and 2010 and 12% were members of a chapter that started between 1999 and 2010.

The Impact of the Triple A Scholarship and other Variables on being a Donor

Reference Table 4 for the following discussion. An initial analysis shows that the Triple A Scholarship, without considering the influence of other factors, has a positive effect on being a donor. Over 42% of members are both donors and Triple A Scholarship recipients versus 33% who are Triple A Scholarship recipients, but not donors. This difference is statistically significant at $p < .005$. Likewise, an individual from a chapter with a high percentage of Triple A Scholarship winners is more likely to be a donor. This is plausible if one considers that a scholarship recipient may have a greater affinity to the organization and might be more inclined to donate.

This is more easily seen in Table 3. Overall 11% of members are donors. The potential impact of the Triple A Scholarship is seen with 13.8% of Triple A Scholarship recipients being donors versus only 9.5% of non-recipients. On average Triple A recipients have donated a total \$140 to the Fraternity or Foundation versus \$150 by non-scholarship recipients. This suggests that more Triple A recipients are donating, but not as much as their counterparts, and not enough to cover the cost of the \$250 scholarship. However, this data only considers members in their first 10 years since graduation. It is expected that they will donate a greater amount as they get older. This will be discussed in greater detail in the Implications and Recommendations section of this paper.

Table 3: Comparison of Triple A Recipients and Donors

	Non Donor	Donor	Avg Donated per donor (total through 2010)
Non Triple A Recipients	90.5%	9.5%	\$ 150
Triple A Recipients	86.2%	13.8%	\$ 140
Overall	89.0%	11.0%	\$ 146

n=24267

Table 4: Summary Statistics and T-Tests by Donor

Variable	Obs	Mean	Std Dev	T-Test By Donor		
				0	1	Difference
AAA Recipient	24267	0.3368	0.4726	0.3260	0.4242	-0.0982****
Donor	24267	0.1096	0.3124			
Volunteer	24267	0.0233	0.1508	0.0128	0.1083	-0.0955****
Officer	24267	0.2313	0.4216	0.2161	0.3546	-0.1386****
Class of 1998	24267	0.0001	0.0091	0.0001	0.0000	0.0001
Class of 1999	24267	0.0003	0.0170	0.0002	0.0008	-0.0005*
Class of 2000	24267	0.0033	0.0577	0.0028	0.0079	-0.0051****
Class of 2001	24267	0.0173	0.1303	0.0163	0.0252	-0.0089****
Class of 2002	24267	0.0688	0.2531	0.0655	0.0951	-0.0296****
Class of 2003	24267	0.0746	0.2628	0.0698	0.1140	-0.0442****
Class of 2004	24267	0.0728	0.2598	0.0665	0.1234	-0.0568****
Class of 2005	24267	0.0778	0.2679	0.0672	0.1643	-0.0972****
Class of 2006	24267	0.0778	0.2679	0.0667	0.1681	-0.1014****
Class of 2007	24267	0.0722	0.2589	0.0662	0.1215	-0.0553****
Class of 2008	24267	0.0837	0.2769	0.0843	0.0786	0.0057
Class of 2009	24267	0.0808	0.2725	0.0841	0.0534	0.0307****
Class of 2010	24267	0.0863	0.2809	0.0947	0.0184	0.0763****
Class of 2011	24267	0.1039	0.3052	0.1152	0.0120	0.1032****
Class of 2012	24267	0.0982	0.2976	0.1091	0.0102	0.0989****
Class of 2013	24267	0.0797	0.2708	0.0886	0.0071	0.0814****
Class of 2014	24267	0.0021	0.0462	0.0024	0.0000	0.0024***
Class of 2015	24267	0.0002	0.0157	0.0003	0.0000	0.0003
Chapter Closed	24267	0.1370	0.3439	0.1350	0.1538	-0.0189****
Chapter Started	24267	0.1181	0.3228	0.1225	0.0827	0.0398****
% Triple A	24267	0.3336	0.1345	0.3322	0.3453	-0.0131****
Public	24267	0.7067	0.4553	0.7065	0.7085	-0.0021
Tuition	24267	14999	12970	15004	14962	41.34
Enroll	24267	17954	11819	17972	17806	166.4
All Men's Avg	22535	2.95	0.18	2.9542	2.9481	0.0061*
ACT btw 24-29	21727	0.4661	0.1186	0.4661	0.4653	0.0009
ACT btw 30-36	21727	0.2261	0.1783	0.2268	0.2193	0.0075
Top 10% HS	22318	0.4252	0.2169	0.4259	0.4199	0.0060*
Top 25% HS	22318	0.6967	0.1884	0.6963	0.6995	-0.0032
HS GPA	19428	3.56	0.25	3.5646	3.5633	0.0013
ACC conference	24267	0.0607	0.2387	0.0556	0.1019	-0.0463****
BIG 12 conference	24267	0.1525	0.3595	0.0931	0.0794	0.0137**
BIG EAST conference	24267	0.0237	0.1520	0.1526	0.1516	0.0011
BIG TEN conference	24267	0.0916	0.2884	0.0242	0.0196	0.0046*
MAC conference	24267	0.0519	0.2218	0.0474	0.0884	-0.0410****
PAC 10 conference	24267	0.0579	0.2336	0.0588	0.0511	0.0076*
SEC conference	24267	0.1094	0.3122	0.1114	0.0936	0.0177****
Other conference	24267	0.4523	0.4977	0.4570	0.4144	0.0426****

****p <.005

***p<.01

**p<.05

*p<.1

An individual who was a chapter officer is also statistically more likely to be a donor ($p < .005$). Nearly each of the class years shows significance; those with a class year 2007 and earlier are more likely to be a donor, and those with a class year of 2009 and later are less likely to be a donor. This is not surprising as undergraduates were included in the sample. Solicitation is limited (nearly nonexistent) to undergraduates and one would not expect an individual to donate until after he graduates.

The characteristics related to the makeup of incoming freshmen at the school generally do not appear to be statistically significant, though the athletic conference may be. Both the closing of a chapter and starting of a chapter are significant at $p < .005$, but the effects are not as expected. Chapters generally close because of behavioral issues or a decline in membership. However this data initially shows that individuals from closed chapters are more likely to be donors while those from new chapters are less likely to be donors.

While several of the variables discussed are statistically significant on their own, do they remain significant when considering the influence of other variables? With the number of significant variables impacting a donor, I used a logistic regression to answer this question. As class year is an indicator of age, I used "class of 1998" to "class of 2001" as the reference category for the class year variable, and created an additional variable (class_2013~s) to capture those very young members (class of 2013 and greater). Similarly, the "other" category of athletic conferences was used as the reference category. For reasons previously discussed, the standard errors were clustered by school. The marginal effect, or impact considering everything else is held at its mean, of each variable was also considered. Table 5 shows the results of this analysis.

This analysis confirms that being a Triple A Scholarship winner is significant in predicting if a member will be a donor. Triple A recipients are 37% more likely to be donors than non-recipients in this

model. The marginal effect shows that individuals who received a Triple A Scholarship are just over 1% more likely to be a donor if we consider all other variables at their means.

The analysis also confirms that being an undergraduate officer is a predicting characteristic for being a donor, more so than being a Triple A Scholarship recipient. Former officers were twice as likely to be donors than those who were not officers. This also appears to be an important observation because it tells us something about the individual's participation history and helps to account for those otherwise unobserved traits which could make individuals more or less likely to be donors.

As expected, the individual's age (determined by class year) appears to be significant to the extent that those who are undergraduates or only recently graduated are much less likely to donate. Interestingly, very few of the school and chapter characteristics appear to be significant indicators of future donors when we consider the other variables in this model. While chapter characteristics such as a closed chapter are significant (the individual is 25% less likely to be a donor), few other academic indicators of the school (i.e. the all-men's average, ACT scores of incoming students, public versus private) were significant. These are better explained by the school (or chapter) itself. This was seen when comparing the model accounting for the standard error of the school (clustering) versus not, where these characteristics became less significant. Clustering allows the researcher to assume that certain groups (in this case individuals who attended the same school) will show related characteristics, but would otherwise be independent. Reference Appendix II for a school-by-school tabulation and Appendix III for the institutional and chapter characteristics used.

Table 5 Logit Regression – Donor with Marginal Effects

	Robust Coef.	Std. Err.	z	P>z	Odds Ratio ⁶	dy/dx	Std. Err.	z	P>z
Triple A Recipient	0.3170	0.0520	6.09	0	37.30%	0.0117	0.0022	5.3	0
Officer	0.6994	0.0622	11.24	0	101.25%	0.0298	0.0047	6.28	0
Class of 2002	-0.2232	0.1542	-1.45	0.148	-20.00%	-0.0072	0.0045	-1.6	0.109
Class of 2003	-0.1920	0.1647	-1.17	0.244	-17.47%	-0.0063	0.0050	-1.25	0.211
Class of 2004	-0.0139	0.1727	-0.08	0.936	-1.38%	-0.0005	0.0060	-0.08	0.935
Class of 2005	0.2601	0.1838	1.42	0.157	29.71%	0.0102	0.0080	1.28	0.201
Class of 2006	0.3202	0.1788	1.79	0.073	37.74%	0.0128	0.0083	1.55	0.122
Class of 2007	0.0029	0.1693	0.02	0.986	0.29%	0.0001	0.0060	0.02	0.986
Class of 2008	-0.8350	0.1750	-4.77	0	-56.61%	-0.0217	0.0037	-5.89	0
Class of 2009	-1.2777	0.2069	-6.18	0	-72.13%	-0.0288	0.0038	-7.6	0
Class of 2010	-2.6879	0.2838	-9.47	0	-93.20%	-0.0427	0.0044	-9.66	0
Class of 2011	-5.0599	0.6159	-8.46	0	-99.37%	-0.0596	0.0054	-10.95	0
Class of 2012	-4.7738	0.6178	-7.73	0	-99.16%	-0.0573	0.0044	-13.07	0
class_2013~s	-4.7781	0.6015	-7.94	0	-99.16%	-0.0534	0.0054	-9.93	0
% Triple A	0.7543	0.3425	2.2	0.028	112.61%	0.0266	0.0128	2.07	0.038
All Men's Avg	-0.0653	0.4355	-0.15	0.881	-6.32%	-0.0023	0.0154	-0.15	0.881
Tuition	0.0000	0.0000	1.44	0.151	0.00%	0.0000	0.0000	1.42	0.155
ACT btw 30-36	-0.4972	0.5613	-0.89	0.376	-39.18%	-0.0175	0.0198	-0.88	0.377
ACT btw 24-26	-0.6219	0.5656	-1.1	0.272	-46.31%	-0.0219	0.0198	-1.1	0.269
HS GPA	0.1697	0.3103	0.55	0.585	18.49%	0.0060	0.0110	0.54	0.586
Public	0.0111	0.2902	0.04	0.969	1.12%	0.0004	0.0102	0.04	0.969
Enrollment	<0.0001	0.0000	2.44	0.015	<0.01%	0.0000	0.0000	2.52	0.012
ACC conference	-0.1046	0.2032	-0.51	0.607	-9.93%	-0.0035	0.0066	-0.54	0.592
BIG 12 conference	0.0789	0.2378	0.33	0.74	8.21%	0.0029	0.0090	0.32	0.751
BIG EAST conference	-0.5240	0.1856	-2.82	0.005	-40.79%	-0.0147	0.0044	-3.39	0.001
BIG TEN conference	-0.3114	0.1828	-1.7	0.088	-26.76%	-0.0098	0.0051	-1.92	0.055
MAC conference	0.6470	0.2175	2.97	0.003	90.98%	0.0297	0.0131	2.28	0.023
PAC 10 conference	-0.1649	0.1719	-0.96	0.337	-15.20%	-0.0055	0.0053	-1.03	0.303
SEC conference	-0.1422	0.1734	-0.82	0.412	-13.26%	-0.0048	0.0056	-0.86	0.391
Chapter Closed	-0.2843	0.1469	-1.94	0.053	-24.75%	-0.0091	0.0043	-2.13	0.033
Chapter Started	0.1692	0.1563	1.08	0.279	18.44%	0.0064	0.0062	1.02	0.308
_cons	-2.4687	1.3556	-1.82	0.069					

N=17329

Pseudo R2 = 0.1875

Std Err. Adjusted for 109 clusters in schoolnum

⁶ Odds Ratio is calculated as exponent(β) -1. For example, the odds ratio for Triple A = $e^{0.3170} - 1 = 1.373 - 1 = 37.3\%$ increase.

The Impact of the Triple A Scholarship and other Variables on being a Volunteer

Reference Table 6 for the following discussion. The initial analysis also shows that volunteers are more likely to have received Triple A Scholarships. Nearly 44% of those who were volunteers had received Triple A Scholarships; only 33% of non-volunteers had received the Triple A Scholarship. This difference is significant at $p < .005$. This is again plausible if one considers a scholarship winner to have a greater affinity toward the organization. Also, like the donor tests, there are several other statistically significant variables which should be examined.

Individuals who were chapter officers were also statistically more likely to be volunteers. Almost 65% of volunteers were officers as undergraduates, while only 22 percent of non-volunteers were undergraduate officers. This is significant at $p < .005$. The member's age (indicated by class year) showed a similar pattern as the donor analysis; those who are older (lower class years) tend to be more likely to be volunteers. This is explained when considering only those who have graduated would serve in a volunteer role and be classified as such in the Fraternity's records.

Several institutional and chapter characteristics were significant in the volunteer model as well. Several academic indicators of 'high caliber' academic institutions, including the percentage of incoming freshmen with top ACT scores (those between 30-36) and in the top 10 percent of their high school classes, suggest that graduates from these schools are less likely to be volunteers (significant at $p < .005$). Public institution graduates and those from schools with higher enrollment were also less likely to be volunteers (significant at $p < .005$).

As with the donor analysis, the question is do these characteristics remain significant when considering the influence of the others in the volunteer model? A logistic regression was used to answer this. As class year is an indicator of age, I used "class of 1998" to "class of 2001" as the reference

Table 6 Summary Statistics and T-Tests by Volunteer

Variable	Obs	Mean	Std Dev	T-Test by Volunteer		
				0	1	Difference
AAA Recipient	24267	0.3368	0.4726	0.3343	0.4389	-0.1046****
Donor	24267	0.1096	0.3124	0.1000	0.5097	-0.4097****
Volunteer	24267	0.0233	0.1508			
Officer	24267	0.2313	0.4216	0.2213	0.6456	-0.4243****
Class of 1998	24267	0.0001	0.0091	0.0001	0.0000	0.0001
Class of 1999	24267	0.0003	0.0170	0.0003	0.0000	0.0003
Class of 2000	24267	0.0033	0.0577	0.0032	0.0106	-0.0075****
Class of 2001	24267	0.0173	0.1303	0.0170	0.0283	-0.0113**
Class of 2002	24267	0.0688	0.2531	0.0677	0.1150	-0.0474****
Class of 2003	24267	0.0746	0.2628	0.0723	0.1735	-0.1012****
Class of 2004	24267	0.0728	0.2598	0.0710	0.1487	-0.0777****
Class of 2005	24267	0.0778	0.2679	0.0757	0.1646	-0.0889****
Class of 2006	24267	0.0778	0.2679	0.0767	0.1221	-0.0454****
Class of 2007	24267	0.0722	0.2589	0.0716	0.0991	-0.0275***
Class of 2008	24267	0.0837	0.2769	0.0840	0.0708	0.0132
Class of 2009	24267	0.0808	0.2725	0.0815	0.0496	0.0320****
Class of 2010	24267	0.0863	0.2809	0.0881	0.0142	0.0739****
Class of 2011	24267	0.1039	0.3052	0.1063	0.0035	0.1028****
Class of 2012	24267	0.0982	0.2976	0.1006	0.0000	0.1006****
Class of 2013	24267	0.0797	0.2708	0.0816	0.0000	0.0816****
Class of 2014	24267	0.0021	0.0462	0.0022	0.0000	0.0022
Class of 2015	24267	0.0002	0.0157	0.0003	0.0000	0.0003
Chapter Closed	24267	0.1370	0.3439	0.1370	0.1398	-0.0029
Chapter Started	24267	0.1181	0.3228	0.1189	0.0850	0.0340***
% Triple A	24267	0.3336	0.1345	0.3334	0.3433	-0.0100*
Public	24267	0.7067	0.4553	0.7081	0.6460	0.0621****
Tuition	24267	14999	12970	14964	16465	-1500****
Enroll	24267	17954	11819	18019	15244	2775****
All Men's Avg	22535	2.95	0.18	2.95	2.93	0.0197***
ACT btw 24-29	21727	0.4661	0.1186	0.4661	0.4691	-0.0031
ACT btw 30-36	21727	0.2261	0.1783	0.2266	0.2032	0.0234****
Top 10% HS	22318	0.4252	0.2169	0.4258	0.4010	0.0248****
Top 25% HS	22318	0.6967	0.1884	0.6970	0.6807	0.0164*
HS GPA	19428	3.56	0.25	3.5641	3.5394	0.0247**
ACC conference	24267	0.0607	0.2387	0.0604	0.0726	-0.0122
BIG 12 conference	24267	0.1525	0.3595	0.0921	0.0690	0.0231*
BIG EAST conference	24267	0.0237	0.1520	0.1542	0.0832	0.0710****
BIG TEN conference	24267	0.0916	0.2884	0.0240	0.0088	0.0152***
MAC conference	24267	0.0519	0.2218	0.0500	0.1292	-0.0792****
PAC 10 conference	24267	0.0579	0.2336	0.0586	0.0283	0.0303****
SEC conference	24267	0.1094	0.3122	0.1108	0.0549	0.0559****
Other conference	24267	0.4523	0.4977	0.4570	0.4144	0.0426****

****p <.005

***p<.01

**p<.05

*p<.1

category and created an additional variable (class_2013~s) to capture those very young members (class of 2013 and greater). The “other” athletic conference category was also used as a reference category.

Table 7 shows the result of this analysis.

Holding all else constant, the Triple A Scholarship does not appear to be a statistically significant indicator of being a volunteer. However, being a chapter officer appears to be a significant and strong indicator of being a volunteer, with officers being five times more likely to serve in this type of role. This again is an important observation as controlling for former chapter officers helps to better account for the concern of unobserved traits which might make someone earn a Triple A Scholarship, donate and volunteer. As expected, the individual’s age (captured by class year) appears to be significant to the extent that those who are undergraduates or recent graduates are less likely to be volunteers.

Chapter characteristics appear to have more significance in predicting volunteers than donors. While the Triple A Scholarship itself is not a significant indicator, the chapter’s percentage of members who earned these scholarships is. An individual who graduates from a chapter with a higher percentage of scholarship recipients is more likely to be a volunteer. Individuals from a chapter which recently started are more than twice as likely to be volunteers, while those from a closed chapter are over 40% less likely to be volunteers.

The characteristics of the individual’s school show some significant, though mixed, results. While individuals from schools where incoming freshmen have high ACT scores (measured by the percentage of freshmen with scores between 30-36) are less likely to be volunteers, their likelihood to volunteer increases as the high school GPA of incoming freshmen increases. Holding aside the strong significance of a former chapter officer being a volunteer, this should suggest to the Fraternity that the chapter a member was a part of is a greater indicator of his likelihood to volunteer than other individual or institutional characteristics.

Table 7 Logit Regression – Volunteer with Marginal Effects

	Robust Coef.	Std. Err.	z	P>z	Odds Ratio ⁷	dy/dx	Std. Err.	z	P>z
Triple A Recipient	0.0896	0.1045	0.86	0.391	9.4%	0.0008	0.0010	0.86	0.391
Officer	1.8357	0.1089	16.86	0	526.9%	0.0309	0.0049	6.33	0
Class of 2002	-0.1177	0.3101	-0.38	0.704	-11.1%	-0.0010	0.0026	-0.4	0.689
Class of 2003	0.0518	0.3178	0.16	0.87	5.3%	0.0005	0.0031	0.16	0.874
Class of 2004	-0.2286	0.3684	-0.62	0.535	-20.4%	-0.0020	0.0028	-0.69	0.49
Class of 2005	-0.1386	0.3343	-0.41	0.679	-12.9%	-0.0012	0.0028	-0.44	0.66
Class of 2006	-0.6658	0.4219	-1.58	0.115	-48.6%	-0.0048	0.0023	-2.07	0.039
Class of 2007	-0.6708	0.3698	-1.81	0.07	-48.9%	-0.0049	0.0021	-2.28	0.023
Class of 2008	-1.1834	0.4322	-2.74	0.006	-69.4%	-0.0073	0.0019	-3.81	0
Class of 2009	-1.5553	0.4274	-3.64	0	-78.9%	-0.0086	0.0018	-4.71	0
Class of 2010	-2.8282	0.4484	-6.31	0	-94.1%	-0.0120	0.0019	-6.29	0
Class of 2011	-4.2524	0.7612	-5.59	0	-98.6%	-0.0158	0.0021	-7.5	0
Class of 2012	(omitted)								
class_2013~s	(omitted)								
% of Triple A Recipients	2.3226	0.7112	3.27	0.001	920.2%	0.0217	0.0072	3.02	0.003
All Men's Avg	-1.1429	1.1594	-0.99	0.324	-68.1%	-0.0107	0.0109	-0.98	0.326
Tuition	0.0000	0.0000	0.51	0.607	0.0%	0.0000	0.0000	0.51	0.612
ACT btw 30-36	-2.6659	1.3921	-1.92	0.055	-93.0%	-0.0249	0.0138	-1.81	0.071
ACT btw 24-29	0.5639	0.8223	0.69	0.493	75.8%	0.0053	0.0076	0.69	0.489
HS GPA	1.0183	0.6221	1.64	0.102	176.8%	0.0095	0.0062	1.54	0.124
Public	0.1826	0.8477	0.22	0.829	20.0%	0.0016	0.0074	0.22	0.824
Enrollment	0.0000	0.0000	0.28	0.78	0.0%	0.0000	0.0000	0.28	0.779
ACC conference	-0.2520	0.5188	-0.49	0.627	-22.3%	-0.0021	0.0039	-0.54	0.589
BIG 12 conference	-0.7454	0.5788	-1.29	0.198	-52.5%	-0.0053	0.0030	-1.78	0.074
BIG EAST conference	-1.1663	0.5082	-2.3	0.022	-68.8%	-0.0066	0.0020	-3.4	0.001
BIG TEN conference	-1.7794	0.8302	-2.14	0.032	-83.1%	-0.0090	0.0022	-4.19	0
MAC conference	0.7258	0.2362	3.07	0.002	106.6%	0.0093	0.0043	2.15	0.031
PAC 10 conference	-0.5635	0.7177	-0.79	0.432	-43.1%	-0.0042	0.0042	-1.01	0.312
SEC conference	-0.9967	0.3728	-2.67	0.008	-63.1%	-0.0069	0.0019	-3.6	0
Chapter Closed	-0.5293	0.2325	-2.28	0.023	-41.1%	-0.0042	0.0017	-2.42	0.015
Chapter Started	0.8329	0.4018	2.07	0.038	130.0%	0.0112	0.0075	1.5	0.134
_cons	-4.6817	2.6308	-1.78	0.075					

N=14113

Pseudo R2 = .2007

Std. Err. Adjusted for 109 clusters in schoolnum

⁷ Odds Ratio is calculated as exponent(β) -1. For example, the odds ratio for Officer = $e^{1.8357} = 6.269 - 1 = 526.9\%$ increase.

Implications and Recommendations

The research question posted in this study was to determine what (if any) impact receiving a Triple A Scholarship has on a graduate to donate to or volunteer with the fraternity, two actions which Phi Gamma Delta is interested in encouraging. This analysis indicates that individuals who receive Triple A Scholarships are more likely to be donors, even when considering several other significant factors. The Triple A Scholarship does not appear to be a predictor of becoming a future volunteer on its own, but individuals who are from chapters with high percentages of members earning Triple A Scholarships are more likely to be volunteers.

The significant factors of the volunteer model could help the Fraternity better focus its efforts to recruit volunteers (advisors) to the organization. It may have greater success targeting former officers compared to other individuals. Those from a chapter whose members historically earns high percentages of Triple A Scholarships or those who were a part of a colonization effort are also likely candidates as they appear to be more likely to be volunteers.

The majority of this discussion focuses on the impacts seen on future donors as the Educational Foundation considers changes to the Triple A Scholarship program. Considering only the members who joined between July 1, 1998 and June 30, 2010, 13.8% of Triple A recipients are donors versus 9.5% on non-recipients. While scholarship recipients were more likely to be donors, their average total of their gifts was \$140 versus \$150 for their non-recipient counterparts and did not donate enough to pay for their \$250 scholarship. It is important to consider, however, that these members had graduated within the last 10 years or were still undergraduates. One might expect that a donor's average gift would increase with time as he becomes more established in a career.

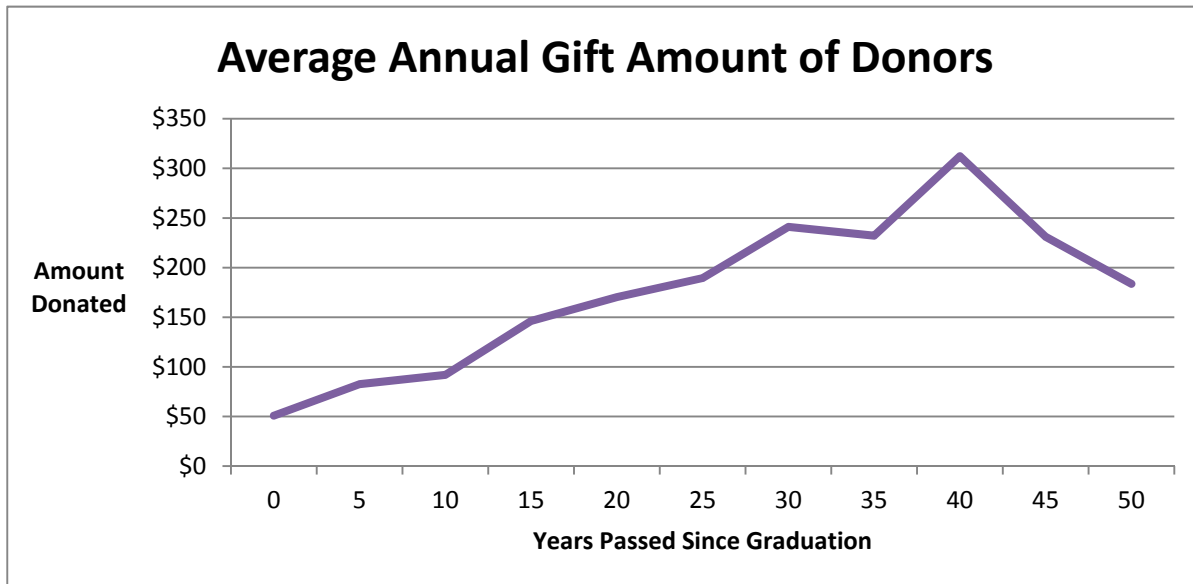


Figure B Average Annual Gifts of Donors considering years passed since graduation

n=134,328

Source: Phi Gamma Delta gift data, 1970-2010

This is confirmed when considering Phi Gamma Delta’s donor data from 1970-2010 that includes all members with class years of 1920 and higher. Figure B shows the average amount given annually by a donor considering the number of years that have passed since he graduated from college. On average, those who donate gave about \$50 in their first year after graduation. This rises to \$312 in the fortieth year since their graduation from college (roughly age 72).⁸ It is important to distinguish that this does not mean that a single donor will give at these amounts each year, but that gifts will increase on average as the donor ages.

Given this historical data, what could the Educational Foundation expect in terms of net dollars raised from Triple A Scholarship recipients? On average, a donor who graduated at least 40 years prior will make a

Table 8: Average Years and Amount Donated

Time from Graduation	Number of Years Donated	Avg Given per Year (in which a gift is given)	Average Amt Given (total)
40 + years	6.1	\$136	\$829
30 + years	5.7	\$132	\$746
20 + years	5.2	\$126	\$657
10 + years	5.0	\$125	\$620

Source: Calculated from 1970-2010 Donor Data

⁸ Gifts beyond 50 years are not shown in this figure as sizes become irregular, likely due to estate gifts.

gift in slightly more than 6 of those years and will give \$136 in each of those years, or \$829 total. (reference Table 8). Without accounting for the time value of money, the average Triple A Scholarship recipient (who becomes a donor) would donate \$579 more than he was awarded (2.3 times his scholarship).

It was previously discussed that, on average, 13.8% of Triple A Scholarship recipients become donors compared to 9.5% of their counterparts. Will this difference equate to enough additional contributions to cover the cost of the Triple A Scholarship program over time given the historical behavior of Phi Gamma Delta’s donors? An estimate of total donations with and without Triple A is calculated using the following assumptions:

- Members joining between 1999-2018 were used considering the Fraternity’s growth projections
- Rates of Triple A recipients remain constant at 33.7% and the amount awarded remains \$250
- Donor rates between Triple A recipients and non recipients remain constant at 13.8% and 9.5% respectively
- Without the Triple A Scholarship Program the donor rate remains 9.5%
- Amounts donated are based on historical total donations of members 40 years after graduation

Figure C shows the results of these calculations. While an additional \$626,000 is donated, this difference does not cover the \$4.4 million cost of the Triple A Scholarship program during these years, leaving a net loss of \$3.8 million. In order for Triple A Scholarship recipients to fully cover the cost of the program, approximately 41% of scholarship recipients would need to become donors.⁹

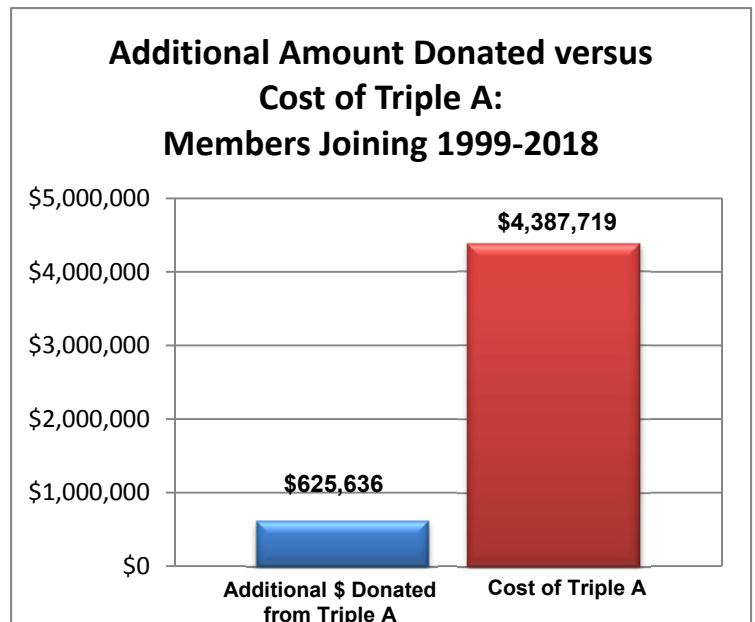


Figure C: Estimated amount donated up to 40 years after graduation by members who joined between 1999-2018 with and without the Triple A program

⁹ Keeping all other assumptions constant

Using the same assumptions but raising the GPA requirements in 2012 (thus reducing recipients from that point forward¹⁰) shows similar results. Increasing the requirement to 3.1 reduces recipients by 13.9% from 2012 onward. This means that recipients would only give \$585,000 more than without the program, but the program cost would drop to \$4.1 million and thus the net cost less would be \$3.5 million. Raising the requirement to a 4.0 still results in a \$2.1 million net cost (\$357,000 more donated at a cost of \$2.1 million).

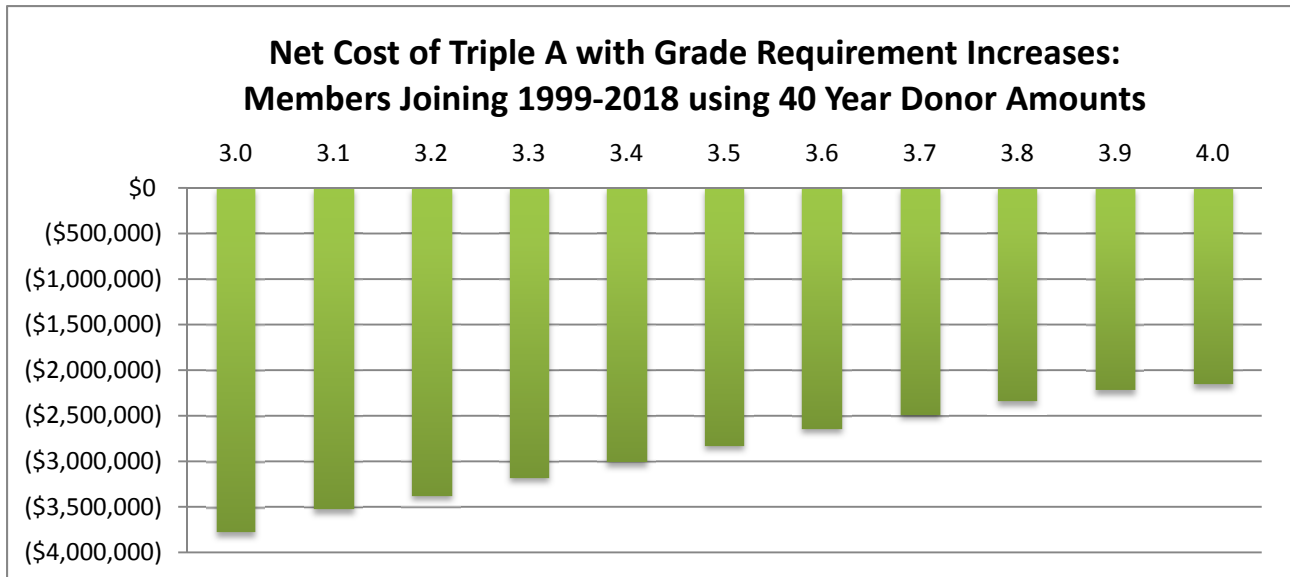


Figure D: Net cost of Triple A for members who joined between 1999-2018. Net cost is calculated as the cost of Triple for those years minus the additional amount given by Triple A recipients up to 40 years after graduation. Requirement increase takes effect in 2012.

Readers should note that these figures represent estimated calculations based on historical data and future projections. Many factors could alter these calculations and care should be taken when considering their implications. While these projections span several years, the time value of money is not calculated. An initial analysis, essentially keeping inflation at zero, indicated scholarship recipients would not donate enough to pay for the program. Calculating the effect of inflation would only increase the net cost and complicate the calculations.

¹⁰ Uses GPA ranges shown in Table 2

While raising the GPA requirement would reduce overall cost, the Educational Foundation must consider the potentially negative impacts on the Fraternity's membership (undergraduate, graduate and future members) as this program is perceived to have other benefits. Likewise, it appears that increasing recipients will not increase future donors enough to cover the program's costs.

This should make clear that the Educational Foundation cannot rely on Triple A recipients to wholly pay for the program over time, particularly as it is structured today. The additional amount donated by Triple A recipients is projected to only cover 14% of the program's cost regardless of the program's academic requirement. This analysis suggests that the Educational Foundation should consider targeting its former Triple A recipients in fundraising efforts, and it may also see some success in targeting certain chapters in Triple A-specific fundraising. While these efforts may not result in 40% or more of Triple A recipients becoming donors, it is plausible that more direct efforts would increase the overall percentage of donors. Of course, this approach will only be beneficial if the Foundation is able to change its donor pattern and attract new donors instead of simply diverting those who are already donating unrestricted gifts.

It is important to note that the characteristics (variables) discussed in this model are simply indicators of likely behavior on average. However, understanding that certain characteristics, such as receiving a Triple A Scholarship and being a chapter officer, make members more likely to be donors is useful to help guide costly solicitation efforts.

Caveats and Limitations

There are potential limitations associated with this study which the reader should acknowledge in order to best interpret its results. There is some concern that the model does not fully capture all of the traits and characteristics which could predict that an individual would be a Triple A Scholarship winner,

donor or volunteer. These traits and characteristics could be intrinsic motivators, making the individual more likely to receive a scholarship, donate and volunteer. If this is the case, the predictive coefficients would be biased upward.

However, while some unexplained traits could exist within these individuals, the school and chapter qualities captured in the model are likely related to the individuals who are part of these schools and chapters. These should help to explain those unobservable traits and reduce potential bias in the results. Consider these examples:

- The school an individual attends provides a rough measure of the academic quality of the student.
- A chapter that closes is one which indicates operational problems and its members are not likely to have a strong affinity for the organization after graduation.
- A chapter with a high percentage of scholarship winners is likely one that places a strong emphasis on academics and is overall a higher performing group.

Controlling for the chapter officer also helps explain these unobservable traits and characteristics which could bias these results. This provides one measure of the individual's participation history in the chapter. Generally speaking, those who are more likely to voluntarily participate or take on leadership roles as undergraduates are also more likely to do the same thing as graduates, whether they donate financially or volunteer their time.

Another limitation to consider is that the data includes only individuals who joined between 1998 and 2010, ultimately a young segment of Phi Gamma Delta's total membership. While this group serves as the entire population of those who could have earned a Triple A Scholarship, the majority of both donors and volunteers tend to be older members. Thus, while this data serves this study well to

predict the effect of the Triple A Scholarship, it may not be a good predictor of overall donor and volunteer tendencies.

Similarly, the data which qualifies an individual as a 'donor' is anyone who contributes to the Fraternity, Foundation or chapter-restricted fund. This includes:

- The Fraternity's 'Graduate Dues' program – an annual campaign by the Fraternity which only asks for \$20
- Educational Foundation campaigns soliciting larger amounts towards its unrestricted and restricted funds
- Chapter-specific fundraising (restricted) which may only be used for a specific chapter

This was done since it is believed that the strongest predictor of a donor is someone who has given at least once before, regardless of the gift's designation. However, the Foundation may ultimately be interested in predictors of a certain level or type of gift; these predictors may be different than those identified here.

Administrative delays could have also made information incomplete for those who joined between July 1, 2009, and June 30, 2010. Several months typically pass from the time an individual joins and when he applies for and receives a scholarship. It was discovered in the midst of the analysis that, although more than 6 months had passed from the cutoff, not all 2009-2010 Triple A Scholarship recipients may have been recorded in the data at the time it was exported, resulting in a lower number of scholarship recipients during that year. This is not believed to have impacted the donor or volunteer results as the individuals affected were undergraduates at that time. Undergraduates are unlikely to be donors and ineligible to be volunteers.

This study initially set out to determine the overall impact of the Triple A Scholarship, including whether it was helping motivate students to achieve academically. However, there were severe limitations in the data available which did not allow this study to focus on that question. In order to

estimate its impact in this respect, an approach similar to Lake (2005) and Asel (2009) would need to be taken, and the researcher would need the ability to track individual student performance beyond the term he received the reward. Most studies measuring this type of impact have had access to or partnered with the institution's registrar office. Phi Gamma Delta would need to do the same with several institutions to get the best estimation of academic impact.

The Educational Foundation and Fraternity may also consider altering their data collection to better understand future donors and volunteers. For instance, the grade point average of scholarship winners was only available in the aggregate and not tied to the other individual data. There could be a relationship between an individual's grade point average and his likelihood of donating, but this information would have to be made available in order to make this determination. The Fraternity may also consider collecting high school academic information, standardized test scores and socioeconomic information as these are considered academic success predictors (Albright) and may help to better understand variances in recipients and their behavior as volunteers and donors. Collecting this data, however, would likely come with a significant cost of both time and resources and would raise privacy concerns for individual members.

Summary

The purpose of this study was to estimate the impact the Phi Gamma Delta Educational Foundation's Academic Achievement Award (Triple A Scholarship) has on the future behaviors of members donating (monetarily) or volunteering within the organization. A logit regression model was used with a dataset containing all individuals who joined the organization since the program's inception as well as several characteristics of the members' schools and chapters. Using this model, individuals who received a Triple A Scholarship are more likely to be donors. Several other variables were found to

be significant predictors, including the individual's age, if he served as an undergraduate officer, the percentage of scholarship recipients in his chapter, and if he attended a school which is a part of a certain athletic conference. Schools which were a part of other athletic conferences were found to be significant predictors of an individual not donating, as was being a part of a chapter which closed.

Likewise, being a chapter officer and age were significant predictors of being a volunteer, although receiving a Triple A Scholarship was not found to be statistically significant. Individuals from schools which had a high percentage of scholarship recipients, those from certain athletic conferences and those who were part of new chapters were also found to significantly more likely to volunteer. Those from chapters which closed, schools with a high percentage of high ACT scores (30-36) and certain other athletic conferences were found to be significantly less likely to volunteer.

While receiving a Triple A Scholarship is one significant predictor of future donors' behavior, it should not be the lone consideration in how to modify the program in the future. A greater percentage of Triple A recipients tend to be donors compared to their peers (13.8% versus 9.5%), but it is unlikely that these donors will completely cover the cost of the program over time. However, understanding that Triple A recipients, chapter officers and those from chapters with a high percentage of Triple A recipients are more likely to be donors, presents an opportunity for the Educational Foundation to better approach and attract new donors.

Appendix I. Explanation of Variables

Individual Variables	
Triple A	Individual received a Triple A Scholarship
Officer	Individual was an officer in his undergraduate chapter
Volunteer	Individual served in a volunteer role after graduating
Donor	Individual has donated to the Fraternity or Educational Foundation
Number of gifts	Number of total donations to Fraternity and Educational Foundation
Total gifts	Total amount donated to Fraternity and Educational Foundation
Average gifts	Average amount donated to Fraternity and Educational Foundation
Class of 1998	Undergraduate class year is 1998
Class of 1999	Undergraduate class year is 1999
Class of 2000	Undergraduate class year is 2000
Class of 2001	Undergraduate class year is 2001
Class of 2002	Undergraduate class year is 2002
Class of 2003	Undergraduate class year is 2003
Class of 2004	Undergraduate class year is 2004
Class of 2005	Undergraduate class year is 2005
Class of 2006	Undergraduate class year is 2006
Class of 2007	Undergraduate class year is 2007
Class of 2008	Undergraduate class year is 2008
Class of 2009	Undergraduate class year is 2009
Class of 2010	Undergraduate class year is 2010
Class of 2011	Undergraduate class year is 2011
Class of 2012	Undergraduate class year is 2012
Class of 2013	Undergraduate class year is 2013
Class of 2014	Undergraduate class year is 2014
Class of 2015	Undergraduate class year is 2015
Institution / Chapter Variables	
Chapter Closed	While in school, the individual's chapter closed
Chapter Started	Individual was a part of a new / startup chapter as an undergraduate
Chapter Triple A	Number of Triple A Scholarships earned by chapter members
Chapter Pledges	Number of members who joined the chapter
% Triple A	Percent of Triple A Scholarships by the chapter (1999-2010)
All Men's Avg	Spring 2010 all-men's average for the campus
Public	School is considered a public institution (vs private)
Enroll	Undergraduate enrollment during 2009-2010 academic year
ACT btw 30-36	Percent of incoming freshmen with ACT scores between 30-36
ACT btw 24-29	Percent of incoming freshmen with ACT scores between 24-29
Top 10% HS	Percent of incoming freshmen who ranked in the top 10 percent of their high school class
Top 25% HS	Percent of incoming freshmen who ranked in the top 25percent of their high school class
HS GPA	Average high school GPA of incoming Freshmen
Tuition	Undergraduate tuition during 2009-2010 academic year
ACC	School is a part of the ACC Athletic Conference
Big 12	School is a part of the Big 12 Athletic Conference
Big East	School is a part of the Big East Athletic Conference
Big 10	School is a part of the Big 10 Athletic Conference
MAC	School is a part of the Mid-American Athletic Conference
Pac 10	School is a part of the PAC 10 Athletic Conference
SEC	School is a part of the Southeastern Athletic Conference
other conference	School is not part of any of the above athletic conferences

Appendix II. Tabulations of Triple A, Donor and Volunteer by School

School	AAA			DONOR			VOLUNTEER		
	0	1	Total	0	1	Total	0	1	Total
Appalachian State	29 47%	33 53%	62 100%	62 100%	0 0%	62 100%	62 100%	0 0%	62 100%
Arizona State	97 86%	16 14%	113 100%	106 94%	7 6%	113 100%	113 100%	0 0%	113 100%
Auburn University	259 58%	189 42%	448 100%	419 94%	29 6%	448 100%	448 100%	0 0%	448 100%
Ball State University	119 59%	84 41%	203 100%	161 79%	42 21%	203 100%	184 91%	19 9%	203 100%
Baylor University	242 85%	43 15%	285 100%	265 93%	20 7%	285 100%	285 100%	0 0%	285 100%
Bowling Green State	104 75%	34 25%	138 100%	117 85%	21 15%	138 100%	125 91%	13 9%	138 100%
Bradley University	47 68%	22 32%	69 100%	54 78%	15 22%	69 100%	53 77%	16 23%	69 100%
Bucknell University I	99 60%	65 40%	164 100%	129 79%	35 21%	164 100%	163 99%	1 1%	164 100%
Bucknell University II	16 80%	4 20%	20 100%	20 100%	0 0%	20 100%	20 100%	0 0%	20 100%
California St Univ Long Beach	7 54%	6 46%	13 100%	13 100%	0 0%	13 100%	13 100%	0 0%	13 100%
California St Univ Northridge	40 83%	8 17%	48 100%	41 85%	7 15%	48 100%	48 100%	0 0%	48 100%
California University of PA	25 66%	13 34%	38 100%	37 97%	1 3%	38 100%	38 100%	0 0%	38 100%
Case Western Reserve I	47 71%	19 29%	66 100%	57 86%	9 14%	66 100%	64 97%	2 3%	66 100%
Case Western Reserve II	51 54%	43 46%	94 100%	90 96%	4 4%	94 100%	94 100%	0 0%	94 100%
Chapman University	78 56%	61 44%	139 100%	134 96%	5 4%	139 100%	134 96%	5 4%	139 100%
College of Charleston	33 53%	29 47%	62 100%	62 100%	0 0%	62 100%	62 100%	0 0%	62 100%
Colorado College	46 65%	25 35%	71 100%	62 87%	9 13%	71 100%	69 97%	2 3%	71 100%
Colorado School of Mines	88 59%	60 41%	148 100%	125 84%	23 16%	148 100%	141 95%	7 5%	148 100%
Colorado State	43 73%	16 27%	59 100%	57 97%	2 3%	59 100%	58 98%	1 2%	59 100%
Columbia University	25 40%	37 60%	62 100%	61 98%	1 2%	62 100%	58 94%	4 6%	62 100%
Cornell University	162 71%	67 29%	229 100%	211 92%	18 8%	229 100%	226 99%	3 1%	229 100%
Davidson College	65 65%	35 35%	100 100%	85 85%	15 15%	100 100%	99 99%	1 1%	100 100%
Denison University	57 95%	3 5%	60 100%	54 90%	6 10%	60 100%	60 100%	0 0%	60 100%
Depauw University	75 39%	117 61%	192 100%	170 89%	22 11%	192 100%	180 94%	12 6%	192 100%
Drake University	131 47%	145 53%	276 100%	241 87%	35 13%	276 100%	263 95%	13 5%	276 100%
East Carolina	31 48%	33 52%	64 100%	63 98%	1 2%	64 100%	64 100%	0 0%	64 100%
Florida International	151 82%	34 18%	185 100%	161 87%	24 13%	185 100%	177 96%	8 4%	185 100%
Florida State	205 79%	53 21%	258 100%	243 94%	15 6%	258 100%	250 97%	8 3%	258 100%
Fresno State	72 84%	14 16%	86 100%	77 90%	9 10%	86 100%	84 98%	2 2%	86 100%
Georgia Institute of	154 57%	115 43%	269 100%	242 90%	27 10%	269 100%	267 99%	2 1%	269 100%

School	AAA			DONOR			VOLUNTEER		
	0	1	Total	0	1	Total	0	1	Total
Gettysburg College	141 81%	34 19%	175 100%	154 88%	21 12%	175 100%	162 93%	13 7%	175 100%
Hampden-Sydney College	105 81%	24 19%	129 100%	101 78%	28 22%	129 100%	129 100%	0 0%	129 100%
Hanover College	79 64%	44 36%	123 100%	114 93%	9 7%	123 100%	121 98%	2 2%	123 100%
Illinois Wesleyan	104 68%	50 32%	154 100%	141 92%	13 8%	154 100%	152 99%	2 1%	154 100%
Indiana State	50 76%	16 24%	66 100%	46 70%	20 30%	66 100%	60 91%	6 9%	66 100%
Indiana University	282 62%	176 38%	458 100%	416 91%	42 9%	458 100%	458 100%	0 0%	458 100%
Iowa State University	130 67%	65 33%	195 100%	159 82%	36 18%	195 100%	182 93%	13 7%	195 100%
Jacksonville	68 85%	12 15%	80 100%	70 88%	10 13%	80 100%	75 94%	5 6%	80 100%
James Madison	106 75%	36 25%	142 100%	124 87%	18 13%	142 100%	137 96%	5 4%	142 100%
Johns Hopkins	97 84%	18 16%	115 100%	100 87%	15 13%	115 100%	114 99%	1 1%	115 100%
Kansas State	121 53%	107 47%	228 100%	199 87%	29 13%	228 100%	227 100%	1 0%	228 100%
Kettering University A	83 78%	23 22%	106 100%	97 92%	9 8%	106 100%	103 97%	3 3%	106 100%
Kettering University B	44 100%	0 0%	44 100%	41 93%	3 7%	44 100%	43 98%	1 2%	44 100%
Knox College	110 82%	24 18%	134 100%	120 90%	14 10%	134 100%	134 100%	0 0%	134 100%
Lafayette College	168 64%	95 36%	263 100%	237 90%	26 10%	263 100%	260 99%	3 1%	263 100%
Lasalle University	104 95%	5 5%	109 100%	105 96%	4 4%	109 100%	104 95%	5 5%	109 100%
Lehigh University	114 79%	31 21%	145 100%	122 84%	23 16%	145 100%	145 100%	0 0%	145 100%
Louisiana State I	140 63%	82 37%	222 100%	189 85%	33 15%	222 100%	218 98%	4 2%	222 100%
Louisiana State II	52 68%	25 32%	77 100%	77 100%	0 0%	77 100%	77 100%	0 0%	77 100%
Miami University I	184 67%	89 33%	273 100%	239 88%	34 12%	273 100%	265 97%	8 3%	273 100%
Miami University II	35 74%	12 26%	47 100%	47 100%	0 0%	47 100%	47 100%	0 0%	47 100%
Michigan State	41 53%	37 47%	78 100%	78 100%	0 0%	78 100%	78 100%	0 0%	78 100%
Mississippi State	119 71%	48 29%	167 100%	143 86%	24 14%	167 100%	166 99%	1 1%	167 100%
Missouri State	52 58%	37 42%	89 100%	84 94%	5 6%	89 100%	88 99%	1 1%	89 100%
New York University	43 70%	18 30%	61 100%	59 97%	2 3%	61 100%	60 98%	1 2%	61 100%
North Carolina State	63 69%	28 31%	91 100%	80 88%	11 12%	91 100%	87 96%	4 4%	91 100%
North Carolina Wilmington	36 68%	17 32%	53 100%	52 98%	1 2%	53 100%	53 100%	0 0%	53 100%
Northwestern University	83 49%	85 51%	168 100%	153 91%	15 9%	168 100%	155 92%	13 8%	168 100%
Ohio State University	90 53%	79 47%	169 100%	148 88%	21 12%	169 100%	165 98%	4 2%	169 100%
Ohio University	202 63%	119 37%	321 100%	240 75%	81 25%	321 100%	307 96%	14 4%	321 100%
Ohio Wesleyan	66 73%	24 27%	90 100%	81 90%	9 10%	90 100%	89 99%	1 1%	90 100%

School	AAA			DONOR			VOLUNTEER		
	0	1	Total	0	1	Total	0	1	Total
Oklahoma State	218 50%	214 50%	432 100%	356 82%	76 18%	432 100%	422 98%	10 2%	432 100%
Oregon State	72 61%	47 39%	119 100%	105 88%	14 12%	119 100%	109 92%	10 8%	119 100%
Pennsylvania State Un	110 67%	54 33%	164 100%	133 81%	31 19%	164 100%	161 98%	3 2%	164 100%
Purdue University	142 45%	174 55%	316 100%	279 88%	37 12%	316 100%	316 100%	0 0%	316 100%
Rensselaer Polytechnic	69 48%	74 52%	143 100%	112 78%	31 22%	143 100%	127 89%	16 11%	143 100%
Rose Hulman Institute	195 61%	126 39%	321 100%	278 87%	43 13%	321 100%	300 93%	21 7%	321 100%
Rutgers University	108 89%	14 11%	122 100%	110 90%	12 10%	122 100%	122 100%	0 0%	122 100%
San Jose State	25 93%	2 7%	27 100%	24 89%	3 11%	27 100%	27 100%	0 0%	27 100%
Southern Methodist Un	255 80%	64 20%	319 100%	285 89%	34 11%	319 100%	314 98%	5 2%	319 100%
Syracuse University	67 73%	25 27%	92 100%	78 85%	14 15%	92 100%	90 98%	2 2%	92 100%
Tennessee Technologic	170 61%	110 39%	280 100%	253 90%	27 10%	280 100%	269 96%	11 4%	280 100%
Texas A & M	226 69%	101 31%	327 100%	271 83%	56 17%	327 100%	320 98%	7 2%	327 100%
Texas Christian	181 73%	67 27%	248 100%	225 91%	23 9%	248 100%	246 99%	2 1%	248 100%
Texas Tech University	219 53%	192 47%	411 100%	372 91%	39 9%	411 100%	406 99%	5 1%	411 100%
Tulane University	52 46%	62 54%	114 100%	104 91%	10 9%	114 100%	23,702 98%	565 2%	24,267 100%
Union College	18 78%	5 22%	23 100%	23 100%	0 0%	23 100%	23 100%	0 0%	23 100%
University of Akron	117 63%	68 37%	185 100%	145 78%	40 22%	185 100%	171 92%	14 8%	185 100%
University of Alabama	192 63%	111 37%	303 100%	278 92%	25 8%	303 100%	299 99%	4 1%	303 100%
University of Alberta	110 76%	34 24%	144 100%	122 85%	22 15%	144 100%	141 98%	3 2%	144 100%
University of Arizona	345 84%	67 16%	412 100%	369 90%	43 10%	412 100%	412 100%	0 0%	412 100%
University of Arkansas	167 69%	75 31%	242 100%	229 95%	13 5%	242 100%	239 99%	3 1%	242 100%
University of British Columbia	223 82%	48 18%	271 100%	252 93%	19 7%	271 100%	267 99%	4 1%	271 100%
University of Calgary	88 90%	10 10%	98 100%	87 89%	11 11%	98 100%	94 96%	4 4%	98 100%
University of Calif Berkeley	114 62%	70 38%	184 100%	163 89%	21 11%	184 100%	183 99%	1 1%	184 100%
University of Calif Irvine	133 81%	31 19%	164 100%	156 95%	8 5%	164 100%	158 96%	6 4%	164 100%
University of Calif Riverside	111 73%	41 27%	152 100%	135 89%	17 11%	152 100%	148 97%	4 3%	152 100%
University of Calif San Deigo I	16 76%	5 24%	21 100%	19 90%	2 10%	21 100%	21 100%	0 0%	21 100%
University of Calif San Deigo II	59 62%	36 38%	95 100%	95 100%	0 0%	95 100%	95 100%	0 0%	95 100%
University of Calif Santa Barb	53 84%	10 16%	63 100%	57 90%	6 10%	63 100%	62 98%	1 2%	63 100%
University of Central Florida	131 68%	61 32%	192 100%	163 85%	29 15%	192 100%	181 94%	11 6%	192 100%
University of Chicago	137 63%	79 37%	216 100%	197 91%	19 9%	216 100%	214 99%	2 1%	216 100%

School	AAA			DONOR			VOLUNTEER		
	0	1	Total	0	1	Total	0	1	Total
University of Cincinnati I	39 61%	25 39%	64 100%	60 94%	4 6%	64 100%	62 97%	2 3%	64 100%
University of Cincinnati II	23 64%	13 36%	36 100%	36 100%	0 0%	36 100%	36 100%	0 0%	36 100%
University of Colorado I	103 74%	36 26%	139 100%	130 94%	9 6%	139 100%	139 100%	0 0%	139 100%
University of Colorado II	39 93%	3 7%	42 100%	42 100%	0 0%	42 100%	42 100%	0 0%	42 100%
University of Delaware	46 72%	18 28%	64 100%	64 100%	0 0%	64 100%	64 100%	0 0%	64 100%
University of Evansville	89 57%	68 43%	157 100%	120 76%	37 24%	157 100%	142 90%	15 10%	157 100%
University of Florida II	50 56%	39 44%	89 100%	88 99%	1 1%	89 100%	79 98%	2 2%	81 100%
University of Florida I	37 46%	44 54%	81 100%	71 88%	10 12%	81 100%	89 100%	0 0%	89 100%
University of Georgia	98 29%	243 71%	341 100%	297 87%	44 13%	341 100%	338 99%	3 1%	341 100%
University of Houston	38 66%	20 34%	58 100%	58 100%	0 0%	58 100%	58 100%	0 0%	58 100%
University of Idaho	110 56%	86 44%	196 100%	176 90%	20 10%	196 100%	195 99%	1 1%	196 100%
University of Illinois	97 53%	87 47%	184 100%	167 91%	17 9%	184 100%	175 95%	9 5%	184 100%
University of Iowa I	159 77%	48 23%	207 100%	194 94%	13 6%	207 100%	203 98%	4 2%	207 100%
University of Iowa II	19 70%	8 30%	27 100%	27 100%	0 0%	27 100%	203 98%	4 2%	207 100%
University of Kansas	183 61%	117 39%	300 100%	278 93%	22 7%	300 100%	299 100%	1 0%	300 100%
University of Kentucky	137 58%	98 42%	235 100%	209 89%	26 11%	235 100%	227 97%	8 3%	235 100%
University of Maine	118 93%	9 7%	127 100%	120 94%	7 6%	127 100%	126 99%	1 1%	127 100%
University of Maryland	177 76%	55 24%	232 100%	217 94%	15 6%	232 100%	227 98%	5 2%	232 100%
University of Massachusetts	14 100%	0 0%	14 100%	14 100%	0 0%	14 100%	14 100%	0 0%	14 100%
University of Memphis	62 74%	22 26%	84 100%	78 93%	6 7%	84 100%	81 96%	3 4%	84 100%
University of Michigan	134 58%	96 42%	230 100%	201 87%	29 13%	230 100%	228 99%	2 1%	230 100%
University of Minnesota	93 72%	37 28%	130 100%	124 95%	6 5%	130 100%	126 97%	4 3%	130 100%
University of Mississippi	18 90%	2 10%	20 100%	18 90%	2 10%	20 100%	20 100%	0 0%	20 100%
University of Missouri	104 72%	41 28%	145 100%	130 90%	15 10%	145 100%	143 99%	2 1%	145 100%
University of Montana	47 72%	18 28%	65 100%	60 92%	5 8%	65 100%	64 98%	1 2%	65 100%
University of Nebraska	130 61%	82 39%	212 100%	194 92%	18 8%	212 100%	206 97%	6 3%	212 100%
University of Nebraska Kearn	20 29%	48 71%	68 100%	66 97%	2 3%	68 100%	67 99%	1 1%	68 100%
University of Nevada	21 100%	0 0%	21 100%	21 100%	0 0%	21 100%	21 100%	0 0%	21 100%
University of New Mexico	131 76%	41 24%	172 100%	155 90%	17 10%	172 100%	171 99%	1 1%	172 100%
University of North Alabama	117 75%	38 25%	155 100%	148 95%	7 5%	155 100%	150 97%	5 3%	155 100%
University of North Carolina	123 73%	46 27%	169 100%	151 89%	18 11%	169 100%	167 99%	2 1%	169 100%

School	AAA			DONOR			VOLUNTEER		
	0	1	Total	0	1	Total	0	1	Total
University of North Texas	48 74%	17 26%	65 100%	65 100%	0 0%	65 100%	65 100%	0 0%	65 100%
University of Oklahoma	338 72%	131 28%	469 100%	429 91%	40 9%	469 100%	469 100%	0 0%	469 100%
University of Oregon	10 100%	0 0%	10 100%	10 100%	0 0%	10 100%	10 100%	0 0%	10 100%
University of Pennsylvania	34 44%	44 56%	78 100%	78 100%	0 0%	78 100%	78 100%	0 0%	78 100%
University of Rhode Island I	15 79%	4 21%	19 100%	19 100%	0 0%	19 100%	18 95%	1 5%	19 100%
University of Rhode Island II	53 85%	9 15%	62 100%	58 94%	4 6%	62 100%	59 95%	3 5%	62 100%
University of Richmond	100 61%	65 39%	165 100%	149 90%	16 10%	165 100%	164 99%	1 1%	165 100%
University of Southern Calif	31 50%	31 50%	62 100%	60 97%	2 3%	62 100%	62 100%	0 0%	62 100%
University of Tennessee	335 78%	96 22%	431 100%	389 90%	42 10%	431 100%	425 99%	6 1%	431 100%
University of Texas	387 75%	129 25%	516 100%	473 92%	43 8%	516 100%	514 100%	2 0%	516 100%
University of Texas Arlington	143 75%	48 25%	191 100%	169 88%	22 12%	191 100%	186 97%	5 3%	191 100%
University of Texas Dallas	16 48%	17 52%	33 100%	33 100%	0 0%	33 100%	33 100%	0 0%	33 100%
University of Texas San Ant	90 91%	9 9%	99 100%	89 90%	10 10%	99 100%	92 93%	7 7%	99 100%
University of Toledo	48 52%	44 48%	92 100%	75 82%	17 18%	92 100%	87 95%	5 5%	92 100%
University of Toronto	83 89%	10 11%	93 100%	85 91%	8 9%	93 100%	89 96%	4 4%	93 100%
University of Vermont	110 79%	29 21%	139 100%	127 91%	12 9%	139 100%	132 95%	7 5%	139 100%
University of Virginia	69 33%	142 67%	211 100%	181 86%	30 14%	211 100%	200 95%	11 5%	211 100%
University of Washington	144 45%	179 55%	323 100%	290 90%	33 10%	323 100%	323 100%	0 0%	323 100%
University of West Ontario I	40 98%	1 2%	41 100%	38 93%	3 7%	41 100%	38 93%	3 7%	41 100%
University of West Ontario II	28 55%	23 45%	51 100%	51 100%	0 0%	51 100%	51 100%	0 0%	51 100%
University of Wisconsin	48 53%	43 47%	91 100%	91 100%	0 0%	91 100%	91 100%	0 0%	91 100%
University of Wisc Eau Claire	57 69%	26 31%	83 100%	73 88%	10 12%	83 100%	74 89%	9 11%	83 100%
University of the South	86 75%	29 25%	115 100%	110 96%	5 4%	115 100%	114 99%	1 1%	115 100%
Villanova University	125 90%	14 10%	139 100%	127 91%	12 9%	139 100%	139 100%	0 0%	139 100%
Virginia Polytechnic	137 57%	105 43%	242 100%	87 36%	155 64%	242 100%	233 96%	9 4%	242 100%
Wabash College	103 46%	122 54%	225 100%	207 92%	18 8%	225 100%	222 99%	3 1%	225 100%
Washington & Jefferson	116 87%	18 13%	134 100%	114 85%	20 15%	134 100%	131 98%	3 2%	134 100%
Washington & Lee	117 66%	61 34%	178 100%	158 89%	20 11%	178 100%	174 98%	4 2%	178 100%
Washington State	147 80%	36 20%	183 100%	167 91%	16 9%	183 100%	178 97%	5 3%	183 100%
West Virginia University	97 80%	24 20%	121 100%	111 92%	10 8%	121 100%	120 99%	1 1%	121 100%
Western Kentucky	47 57%	36 43%	83 100%	81 98%	2 2%	83 100%	81 98%	2 2%	83 100%

School	AAA			DONOR			VOLUNTEER		
	0	1	Total	0	1	Total	0	1	Total
William Jewell College	146 68%	70 32%	216 100%	198 92%	18 8%	216 100%	216 100%	0 0%	216 100%
William Woods	78 67%	39 33%	117 100%	102 87%	15 13%	117 100%	115 98%	2 2%	117 100%
Wittenberg University	126 75%	41 25%	167 100%	145 87%	22 13%	167 100%	160 96%	7 4%	167 100%
Worcester Polytechnic	134 81%	32 19%	166 100%	145 87%	21 13%	166 100%	160 96%	6 4%	166 100%
Total	16,095 66%	8,172 34%	24,267 100%	21,608 89%	2,659 11%	24,267 100%	23702 98%	565 2%	24267 100%

Appendix III. Institutional and Chapter Characteristics

School	Chapter Closed	Chapter Started	Public	%Triple AAA	AMA	CONF	Enroll	ACT 3036	ACT 2429	Top 10%HS	Top 25%HS	HS gpa	Tuition
Appalachian State University	0	0	1	0.54	2.872	other	14872	0.059	0.4992	0.22	0.62	3.92	5460
Arizona State University	0	0	1	0.14	2.92	PAC 10	54227	0.095	0.395	0.31	0.57	3.38	5679
Auburn University	0	0	1	0.42	2.76	SEC	19926	0.229	0.512	0.4	0.65	3.69	6240
Ball State University	0	0	1	0.4	2.802	MAC	17737	0.0533	0.5581	0.29	0.61	3.28	7228
Baylor University	0	0	0	0.15		BIG 12	12149	0.1814	0.5326	0.4	0.73		26966
Bowling Green State University	0	0	1	0.25	2.68	MAC	14807	0.04	0.29	0.12	0.34	3.2	8322
Bradley University	0	0	0	0.32	3.05	other	5315	0.11	0.56	0.28	0.63	3.6	25150
Bucknell University I	1	0	0	0.39	3.22	other	3543	0.43	0.52	0.59	0.88	3.49	40594
Bucknell University II	0	1	0	0.2	3.22	other	3543	0.43	0.52	0.59	0.88	3.49	40594
California State University Long Beach	0	1	1	0.5	2.93	other	29226	0.032	0.275	0	0.84	3.42	11160
California State University Northridge	1	0	1	0.17		other	23510	0	0.11			3.28	4801
California University of Pennsylvania	0	0	1	0.32	2.87	other	6229	0	0	0.07	0.28	3.3	5804
Case Western Reserve University I	1	0	0	0.28	3.24	other	4228	0.593	0.383	0.68	0.93		37300
Case Western Reserve University II	0	1	0	0.45	3.24	other	4228	0.593	0.383	0.68	0.93		37300
Chapman University	0	0	0	0.44	3.149	other	4476	0.12	0.63	0.61	0.96	3.7	38524
College of Charleston	0	0	1	0.45	2.732	other	10147	0.0619	0.591	0.3056	0.6768	3.89	10314
Colorado College	1	0	0	0.35	3.304	other	2000	0.4892	0.4502	0.63	0.87		38748
Colorado School of Mines	0	0	1	0.39	2.89	other	3675	0.3	0.619	0.52	0.85	3.7	10590
Colorado State University	0	1	1	0.27	2.75	other	22158	0.087	0.516	0.215	0.501	3.56	4822
Columbia University	0	1	0	0.6	3.44	other	7318	0.66	0.31	0.93	0.98	3.8	21590
Cornell University	0	0	0	0.3		other	13931	0.71	0.27	0.86	0.98		39450
Davidson College	0	0	0	0.35	3.102	other	1743	0.62	0.36	0.82	0.97	4	36230
Denison University	1	0	0	0.05	3.06	other	2162	0.32	0.6	0.49	0.86	3.6	37270
Depauw University	0	0	0	0.61	3.04	other	2390	0.237	0.539	0.53	0.83	3.56	34400
Drake University	0	0	0	0.52	3.09	other	3548	0.229	0.572	0.38	0.7	3.63	26400
East Carolina University	0	0	1	0.52	2.67	other	21458	0.0072	0.1924	0.13	0.42	3.44	4885

School	Chapter Closed	Chapter Started	Public	%Triple AAA	AMA	CONF	Enroll	ACT 3036	ACT 2429	Top 10%HS	Top 25%HS	HS gpa	Tuition
Florida International	0	0	1	0.18	2.75	other	31790	0.0656	0.7078			3.7	4083
Florida State University	1	0	1	0.21	2.942	ACC	30803	0.13	0.714	0.34	0.61	3.71	5237
Fresno State University	1	0	1	0.16	2.76	other	17876	0.02	0.17			3.34	5535
Georgia Institute of Technology	0	0	1	0.42	2.95	ACC	13515	0.4365	0.5209	0.8055	0.9518	3.81	7070
Gettysburg College	0	0	0	0.2	3.04	other	2516			0.68	0.86		38690
Hampden-Sydney College	0	0	0	0.19	2.875	other	1068	0	0.37	0.15	0.35	3.2	29518
Hanover College	0	1	0	0.36	2.88	other	975	0.18	0.52	0.34	0.75	3.7	26950
Illinois Wesleyan University	0	0	0	0.32	3.151	other	2094	0.35	0.55	0.44	0.8	3.82	35076
Indiana State University	1	0	1	0.24	2.73	other	8460	0.008	0.163	0.093	0.287	3	7226
Indiana University	0	0	1	0.37	3.047	BIG TEN	32490	0.233	0.584	0.34	0.71	3.6	7722
Iowa State University	0	0	1	0.32	2.88	BIG 12	22521	0.14	0.47	0.28	0.62	3.53	6102
Jacksonville University	0	0	0	0.15	2.4	other	3007	0.036	0.272	0.19	0.4	3.27	25300
James Madison University	0	0	1	0.25	2.895	other	17281	0.06	0.56	0.28	0.72	3.8	3734
Johns Hopkins University	0	0	0	0.16	3.22	other	4998	0.707	0.27	0.8246	0.9681	3.68	40680
Kansas State University	0	0	1	0.46	2.839	BIG 12	18778	0.1212	0.4278	0.22	0.49	3.4	6186
Kettering University A	0	0	0	0.22	2.989	other	2080	0.1212	0.4278	0.22	0.49	3.8	29672
Kettering University B	0	0	0	0	3.0513	other	2080	0.1212	0.4278	0.22	0.49	3.8	29672
Knox College	0	0	0	0.18	3	other	1407	0.41	0.52	0.37	0.56	3.32	34110
Lafayette College	1	0	0	0.36	3.24	other	2360	0.207	0.619	0.62	0.92	3.41	39115
Lasalle University	0	0	0	0.05	2.85	other	4358	0.05	0.69	0.24	0.5	3.28	33700
Lehigh University	0	0	0	0.21	3.044	other	4809			0.93	0.99		38330
Louisiana State University I	1	0	1	0.37	2.804	SEC	23012	0.058	0.4992	0.22	0.62	3.49	3469
Louisiana State University II	0	1	1	0.32	2.804	SEC	23012	0.058	0.4992	0.22	0.62	3.49	3469
Miami University I	1	0	1	0.33	2.95	MAC	14671	0.18	0.63	0.38	0.74	3.65	12198
Miami University II	0	1	1	0.26	2.95	MAC	14671	0.18	0.63	0.38	0.74	3.65	12198
Michigan State University	0	1	1	0.47	2.98	BIG TEN	36489	0.125	0.365	0.308	0.699	3.6	11415
Mississippi State University	0	0	1	0.28	2.8	SEC	14602	0.1152	0.3842	0.27	0.27	3.17	5151

School	Chapter Closed	Chapter Started	Public	%Triple AAA	AMA	CONF	Enroll	ACT 3036	ACT 2429	Top 10%HS	Top 25%HS	HS gpa	Tuition
Missouri State University	0	0	1	0.41	2.91	other	17024	0.0933	0.3991	0.23	0.51	3.52	5580
New York University	0	0	0	0.3		other	21269	0.524	0.453	0.678	0.917	3.6	37372
North Carolina State University	0	0	1	0.31	2.892	ACC	25255	0.14	0.55	0.41	0.83	4.19	3959
Northwestern University	0	0	0	0.51	3.43	BIG TEN	8637	0.85	0.15	0.9	0.99		39840
Ohio State University	0	1	1	0.46	3.05	BIG TEN	41348	0.27	0.64	0.49	0.85		8994
Ohio University	1	0	1	0.37	2.832	MAC	18589	0.08	0.4	0.16	0.44	3.36	9179
Ohio Wesleyan University	1	0	0	0.27	2.8	other	1868	0.172	0.592	0.36	0.59	3.46	35040
Oklahoma State University	0	0	1	0.49	2.73	BIG 12	17849	0.1476	0.4541	0.27	0.55	3.52	3941
Oregon State University	0	0	1	0.39	2.9	PAC 10	18067	0.09	0.4	0.24	0.52	3.47	5760
Pennsylvania State University	0	0	1	0.32	3.02	BIG TEN	38630			0.4982	0.8577	3.55	13604
Purdue University	0	0	1	0.55	2.76	BIG TEN	31145	0.22	0.5	0.35	0.7	3.5	8592
Rensselaer Polytechnic Institute	0	0	0	0.51	3.07	other	5659	0.26	0.6	0.61	0.9	3.67	39600
Rose Hulman Institute of Technology	0	0	0	0.38	3.06	other	1844	0.475	0.441	0.606	0.886	3.89	33900
Rutgers University	1	0	1	0.11	2.889	BIG EAST	40523			0.39	0.36		9926
San Jose State University	1	0	1	0.07		other	24273	0.025	0.227			3.21	11160
Southern Methodist University	0	0	0	0.2	3.07	other	6228	0.3069	0.5743	0.43	0.73	3.57	33040
Syracuse University	0	0	0	0.27	3.06	BIG EAST	13040					3.6	33630
Tennessee Technological University	0	0	1	0.39	2.765	other	8918	0.07	0.36	0.25	0.53	3.4	6038
Texas A & M University	0	1	1	0.31	2.82	BIG 12	38810	0.271	0.5194	0.5	0.89		5152
Texas Christian University	0	0	0	0.27	2.992	other	7640			0.3	0.61		30000
Texas Tech University	0	0	1	0.46	2.769	BIG 12	24236	0.075	0.409	0.21	0.53		5370
Tulane University	0	1	0	0.55	3.16	other	6533			0.51	0.74	3.5	41884
Union College	1	0	0	0.22		other	2194	0.3451	0.5929	0.58	0.84	3.56	42000
University of Akron	0	0	1	0.36	2.67	MAC	21327	0.037	0.243	0.11	0.28	2.95	7345
University of Alabama	0	0	1	0.36	2.82	SEC	23700	0.18	0.36	0.433	0.561	3.47	7000
University of Alberta	0	0	1	0.23		other	30457					3.1	5177

School	Chapter Closed	Chapter Started	Public	%Triple AAA	AMA	CONF	Enroll	ACT 3036	ACT 2429	Top 10%HS	Top 25%HS	HS gpa	Tuition
University of Arizona	0	0	1	0.16	2.98	PAC 10	30346	0.1	0.41	0.34	0.62	3.37	6540
University of Arkansas	0	1	1	0.31	2.9	SEC	15835	0.196	0.483	0.303	0.601	3.55	5211
University of British Columbia	0	0	1	0.18		other	37994						4819
University of Calgary	0	0	1	0.1		other	22556					2.9	4590
University of California Berkeley	0	1	1	0.37	3.25	PAC 10	25530	0.54	0.36			3.8	9402
University of California Irvine	0	0	1	0.19	3.04	other	22226					3.85	9402
University of California Riverside	0	0	1	0.27	2.673	other	18242	0.03	0.3			3.5	9402
University of California San Diego I	1	0	1	0.24	3.02	other	23143	0.33	0.47				9402
University of California San Diego II	0	1	1	0.38	3.02	other	23143	0.33	0.47				9402
University of California Santa Barbara	1	0	1	0.16	2.955	other	18892	0.21	0.52			3.84	9055
University of Central Florida	0	0	1	0.32	2.794	other	45301	0.094	0.656	0.35	0.77	3.71	5020
University of Chicago	0	0	0	0.37	3.32	other	5225	0.64	0.32	0.8	0.97	3.79	40188
University of Cincinnati I	1	0	1	0.39	2.921	BIG EAST	21884	0.1098	0.4853	0.22	0.49	3.42	7896
University of Cincinnati II	0	1	1	0.35	2.921	BIG EAST	21884	0.1098	0.4853	0.22	0.49	3.42	7896
University of Colorado I	1	0	1	0.26		BIG 12	27069	0.18	0.6	0.25	0.58	3.55	6446
University of Colorado II	0	1	1	0.07		BIG 12	27069	0.18	0.6	0.25	0.58	3.55	6446
University of Delaware	0	0	1	0.28	2.95	other	15757	0.16	0.32	0.37	0.54	3.5	8540
University of Evansville	0	0	0	0.41	2.97	other	2497	0.14	0.52	0.36	0.71	3.74	28076
University of Florida I	1	0	1	0.54	3.28	SEC	32660	0.37	0.51	0.77	0.93	4	4373
University of Florida II	0	1	1	0.44	3.28	SEC	32660	0.37	0.51	0.77	0.93	4	4373
University of Georgia	0	0	1	0.71	3.04	SEC	26142	0.2423	0.6259	0.54	0.89	3.83	5623
University of Houston	0	0	1	0.31	2.5	other	29298	0.031	0.302	0.24	0.6	3.6	5542
University of Idaho	0	0	1	0.44	2.87	other	9343	0.0938	0.3568	0.19	0.46	3.38	5402
University of Illinois	0	1	1	0.45	3.05	BIG TEN	31447	0.391	0.5003	0.575	0.9357		9242
University of Iowa I	1	0	1	0.23	2.888	BIG TEN	20574	0.14	0.56	0.23	0.55	3.57	6128
University of Iowa II	0	1	1	0.32	2.888	BIG TEN	20574	0.14	0.56	0.23	0.55	3.57	6128
University of Kansas	0	0	1	0.37	2.9	BIG 12	21066	0.13	0.47	0.27	0.55	3.4	4956

School	Chapter Closed	Chapter Started	Public	%Triple AAA	AMA	CONF	Enroll	ACT 3036	ACT 2429	Top 10%HS	Top 25%HS	HS gpa	Tuition
University of Kentucky	0	0	1	0.41	2.876	SEC	19189	0.127	0.4472	0.27	0.56	3.4	7656
University of Maine Orono	0	0	1	0.07	2.86	other	9667	0.052	0.38	0.21	0.52	3.22	7170
University of Maryland	0	0	1	0.24	3.05	ACC	26493			0.71	0.91	3.93	6763
University of Massachusetts	0	0	1	0		other	20873	0.108	0.59	0.27	0.67	3.6	10203
University of Memphis	0	0	1	0.24	2.7	other	17510	0.0307	0.2624	0.17	0.45	3.46	6780
University of Michigan	0	1	1	0.42	3.202	BIG TEN	26208	0.46	0.48	0.922	0.99	3.75	12221
University of Minnesota	0	0	1	0.28	3.05	BIG TEN	33236	0.2326	0.5641	0.43	0.83		9120
University of Mississippi	1	0	1	0.1	2.6	SEC	13204	0.1	0.34	0.26	0.48	3.3	5106
University of Missouri	1	0	1	0.28	2.87	BIG 12	23869	0.1524	0.5424	0.25	0.55		7368
University of Montana	1	0	1	0.27	2.79	other	12825	0.062	0.366	0.16	0.39	3.23	4175
University of Nebraska	0	0	1	0.38	3.007	BIG 12	18955	0.1897	0.4462	0.27	0.54		5948
University of Nebraska Kearney	0	0	1	0.69	2.72	other	5031	0.0525	0.3486	0.17	0.42	3.3	4808
University of Nevada Las Vegas	0	0	1	0	2.69	other	22708	0.031	0.284	0.22	0.54	3.26	4913
University of New Mexico	0	0	1	0.23	3.002	other	21392	0.0452	0.2988	0.19	0.45	3.28	4348
University of North Alabama	0	0	1	0.25	2.5	other	6195	0.023	0.254	0.3	0.44	2.89	5010
University of North Carolina	0	0	1	0.27	3.085	ACC	17981	0.4469	0.4569	0.8	0.96	4.47	4066
University of North Carolina Wilmington	0	0	1	0.3	2.81	other	11197	0.06	0.54	0.24	0.62	3.78	4873
University of North Texas	0	0	1	0.25	2.7	other	28474	0.045	0.358	0.21	0.51		5360
University of Oklahoma	0	0	1	0.28	2.89	BIG 12	19838	0.2875	0.4429	0.34	0.68	3.59	5245
University of Oregon	1	0	1	0	2.97	PAC 10	18509			0.28	0.62	3.54	6180
University of Pennsylvania	0	1	0	0.56	3.386	other	9768	0.78	0.21	0.96	0.99	3.83	36208
University of Rhode Island I	1	0	1	0.21	2.63	other	13234	0.0579	0.3926	0.17	0.45	3.21	8238
University of Rhode Island II	0	1	1	0.15	2.63	other	13234	0.0579	0.3926	0.17	0.45	3.21	8238
University of Richmond	0	0	0	0.39	3.096	other	2925	0.381	0.522	0.58	0.87	3.5	41610
University of Southern California	0	1	0	0.49	3.2	PAC 10	16729	0.541	0.438	0.86	0.97	3.69	39194
University of Tennessee	0	0	1	0.22	2.96	SEC	21182	0.2038	0.595	0.38	0.7	3.78	5918

School	Chapter Closed	Chapter Started	Public	%Triple AAA	AMA	CONF	Enroll	ACT 3036	ACT 2429	Top 10%HS	Top 25%HS	HS gpa	Tuition
University of Texas	0	0	1	0.25	3.2	BIG 12	38168	0.338	0.448	0.769	0.942		8930
University of Texas Arlington	1	0	1	0.25	2.72	other	21370	0.039	0.352	0.24	0.66		8186
University of Texas Dallas	0	0	1	0.52	2.88	other	9801	0.29	0.48	0.36	0.7	3.58	8950
University of Texas San Antonio	1	0	1	0.09	2.63	other	25006	0.0247	0.293	0.1025	0.3814		7527
University of Toledo	0	0	1	0.48	2.748	MAC	18140	0.0411	0.2571	0.15	0.37	3.06	6935
University of Toronto	0	0	1	0.11		other	55352					2.9	4991
University of Vermont	0	0	1	0.21	3.04	other	11382	0.15	0.62	0.29	0.66		11712
University of Virginia	0	1	1	0.67	3.146	ACC	15476	0.55	0.39	0.89	0.97	4.11	8356
University of Washington	0	0	1	0.55	3.18	PAC 10	32718	0.26	0.53	0.86	0.97	3.7	7125
University of Western Ontario I	1	0	1	0.02		other	21302					3.1	4724
University of Western Ontario II	0	1	1	0.44		other	21302					3.1	4724
University of Wisconsin	0	1	1	0.47	3.103	BIG TEN	30343	0.345	0.585	0.58	0.93	3.69	8987
University of Wisconsin Eau Claire	0	0	1	0.3	2.99	other	10487	0.053	0.5581	0.29	0.61		5527
University of the South Sewanee	0	0	0	0.25	3.005	other	1469	0.333	0.573	0.43	0.67	3.6	35590
Villanova University	0	0	0	0.1	3.18	BIG EAST	7201	0.57	0.39	0.58	0.88	3.76	38240
Virginia Polytechnic Institute & State University	0	0	1	0.43	2.986	ACC	23558			0.44	0.85	3.85	7309
Wabash College	0	0	0	0.54	2.95	other	872	0.16	0.52	0.43	0.67	3.58	30400
Washington & Jefferson College	0	0	0	0.13	2.97	other	1425					3.35	32895
Washington & Lee University	0	0	0	0.34	3.103	other	1759	0.74	0.26	0.81	0.94		39500
Washington State University	0	0	1	0.2	3	PAC 10	8080	0.058	0.411	0.3	0.55	3.42	21726
West Virginia University	0	0	1	0.2	2.65	BIG EAST	21720	0.0475	0.3482	0.19	0.45	3.31	5304
Western Kentucky University	0	0	1	0.43	2.49	other	17645	0.04	0.26	0.17	0.38	3.15	7200
William Jewell College	0	0	0	0.32	3.17	other	1060	0.15	0.47	0.38	0.66	3.7	28450
William Woods University	0	0	0	0.33	2.75	other	1162	0.025	0.27	0.15	0.4	3.2	17500
Wittenberg University	0	0	0	0.24	2.955	other	1899	0.15	0.5	0.27	0.5	3.44	35884
Worcester Polytechnic Institute	0	0	0	0.19		other	3453	0.35	0.54	0.55	0.88	3.8	36890

References

- Abbott, William, M. (2008). The Politics of, A Case Study. *The Magazine of Higher Learning* 40(1): 32-37.
- Achen, Alexandra C., & Courant, Paul N. (2009). What Are Grades Made Of? *Journal of Economic Perspectives* 23(3): 77-92.
- Albright, J., Telephone interview, Mar 8, 2011.
- Asel, Ashley, M., Seifert, Tricia A., & Pascarella, Ernest T. (2009). The Effects of Fraternity / Sorority Membership on College Experiences and Outcomes: A Portrait of Complexity. *Oracle* 4(2): 1-15.
- Astin, A.W. (1975). *Preventing Students from Dropping Out*. San Francisco: Joessey-Bass.
- Bryson, F.W. (1965). An investigation of the effects of deferred rush and pledging on a group of freshmen at Southern Methodist University. Ann Arbor, Michigan. Abstracted in *Dissertation Abstracts* 25(8): 4478
- Case Western Reserve Office of Institutional Research. "Greek Life and the Student Experience." Powerpoint. 2010. (Accessed October 1, 2010)
- Cornell, C.M, Lee, K.H., & Mustard, D.B. (2003). The Effects of Merit-Based Financial Aid on Academic Choices in College." University of Georgia Department of Economics Working Paper.
- DeBard, R., Lake, T., & Binder, R. S. (2006). Greeks and Grades: The First-Year experience. *NASPA Journal* 43(1): 56-68.
- Dugan, K., Mullin, C., & Siegfried, J. (November, 2000). Undergraduate Financial Aid and Subsequent Giving Behavior. Prepared for the Williams Project on the Economics of Higher Education, Williamstown, MA.
- Eckland, B.K. (1964). A Source of Error in College Attrition Studies. *Sociology of Education* 38 (1): 60-72.
- Harrison, W.B., Shannon, K.M., & Peterson, S.P (1995) Alumni Donations and Colleges' Development Expenditures: Does Spending Matter? *The American Journal of Economic and Sociology* 20: 397-413.
- Heller, D.E., & Rogers, K. (2003). "Merit Scholarships and Incentives for Academic Performance." PowerPoint. 20th Annual NASSGAP/NCHELP Financial Aid Research Conference. May, 2003.
- Henry, G.T., & Rubenstein, R. (2002). Paying for Grades: Impact of Merit-Based Financial Aid on Educational Quality. *Journal of Policy Analysis and Management* 21(1): 93-109.
- Hernandez-Julian, Rey, Merit-Based Scholarships and Grade Inflation in Higher Education. (May 26, 2006). Available at SSRN: <http://ssrn.com/abstract=904625> (assessed February 4, 2011).
- Kelley, Thomas F (2009). Grade Inflation: Sense and Nonsense. *Phi Delta Kappan* 90 (9); 696
- Lake, Tony (2005). Membership and the First Year of College: A Comparison of the Academic Achievements of Social Sorority and Fraternity Members Who Joined During Their First Year of College and Students Who Never Joined. (Doctoral dissertation, Bowling Green State University). Available from Ohio Link. (ID bgsu1131488126) http://rave.ohiolink.edu/etdc/view?acc_num=bgsu1131488126.
- McPherson, M.S., & Schapiro, M.O. (1998). *The Student Aid Game*. Princeton, NJ: Princeton University Press
- Moline, A. E. (1987). Financial aid and student persistence: An application of causal modeling. *Research in Higher Education* 26(2): 130-147
- Monks, J. (2009). The Impact of Merit Based Financial Aid on College Enrollment: A Field Experiment. *Economics of Education Review* 28 (1): 99-106.
- Rosovsky, H. & Hartley, M. (2002). *Evaluation and the Academy: Are We Doing the Right Thing?* Cambridge, MA.: American Academy of Arts and Sciences, 2002.
- Singell, L. D. (2002). Come and Stay Awhile: Does Financial Aid Effect Enrollment and Retention at a Large Public University? University of Oregon, Eugene, OR.
- Tinto, V. (1993). *Leaving College: Rethinking the Causes and Cures of Student Attrition* (2nd ed.) Chicago, IL: University of Chicago Press.