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Evaluating Conformity and Reciprocity in University Alumni Donation

Abstract
Alumni donation has a significant impact on the function of liberal arts institutions across the U.S. Specific factors relating to alumni donation behavior have been identified in previous research; however few studies systematically utilize existing theories of motivation for voluntary contributions to evaluate the effectiveness of alumni donation factors. This research classifies specific factors into reciprocity and conformity and surveys Ohio Wesleyan University (OWU) alumni about donation attitudes. The logistic regression model and the linear regression model complement each other and provide support for the hypothesis that the more one subjects to conformity, the more likely one tends to donate to OWU. This research also adds to the existing literature in focusing on the relative income and perceived information rather than on absolute information. The research results provide policy suggestions to improve university fundraising strategies.

Keywords
Donation Behavior, Voluntary Contribution, Peer Pressure, Reciprocity, Conformity, College, High Education, Alumni

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I. Introduction

From 1999 to 2000, the voluntary support from alumni funded 21% of total institutional expenditures in private liberal arts institutions (Alumni Giving in the New Millennium, 2002). Compared to other forms of philanthropic behavior (e.g. labor contribution), monetary contribution is simple and static (Linardi and McConnell, 2011). While the classical model on charitable giving argues that individuals are free to give as they please as long as their financial constraints allow, the character of monetary giving also leaves it more vulnerable to effective manipulation (Ellingsen and Johannesson, 2009). Previous research has looked at motivations and manipulations behind charitable contribution; research has identified a mixture of three factors behind one's decision to give: altruistic motivation, material self-interest, and social or self image concerns (Bénabou and Tirole, 2006). Manipulating the combination of these three factors alters the behavior it produces. In this research, I mainly focus on the third factor, social or self image concern, which is also referred to as benefits from private motivation, since donation under this motivation often resembles private goods in some way as they are unique to the donor (Vesterlund, 2006). Economists further categorize this factor into two reasons for non-selfish behavior: conformity and reciprocity (Alpizar, Carlsson, and Johansson-Stenman, 2008).

While research on alumni's educational donation has mostly focused on identifying specific factors concerning the motivation for donation, seldom has any research applied the theories of conformity and reciprocity among determinants of alumni's donation behavior. For the research in this paper, I am interested in roles conformity and reciprocity play in university alumni donations. Specifically, I investigate how different types of donation pledging information, classified under conformity or reciprocity, affect the actual contribution from university alumni.

I utilize a survey of 70 Ohio Wesleyan University alumni who graduated between 1984 and 2004 and who currently live in the State of Ohio to test for differences in their likelihood of becoming a donor in the year 2012 based on their different perceptions of conformity and reciprocity information. A two-sample t test is used to test for the mean differences for each variable between likely donors and likely non-donors. Furthermore, I use both logistic and linear regression models to test for hypotheses and evaluate the level of impact for conformity and reciprocity. I find that information from conformity statistically significantly impacts an

individual's probability of becoming a donor. While reciprocity information shows a positive pressure on one's likelihood, it lacks statistical significance. This research adds to the existing literature a direct combination of motivation theory with existing real world scenario analysis. It also strengthens the importance of relative information rather than absolute information in one's donation behavior. The overall results would also provide policy implication for the university in assessing fundraising strategies.

The remainder of this paper is organized as follows: Section II presents a brief review of literature, Section III states the hypotheses for this research, Section IV describes the survey design and data collection, Section V provides data descriptively, Section VI presents regression results and discussions, and finally, Section VII concludes.

II. Literature Review

Numerous studies have sought to provide definitions for conformity and reciprocity. In this paper, I define terms according to a generally accepted concept across the literature. Conformity means that people care about their contributions relative to the contributions of others in their social reference group (Bernheim, 1994). At the same time, reciprocity is defined as when individuals reward others that do beneficial things to them and punish others that do harmful things to them (Fischbacher, Gächter, and Fehr, 2001). Meyer and Yang (2012) explain that "the distinction here is that reciprocity is driven by response to a positive or negative action from somebody else and a desire to create fairness whereas conformity does not have its roots in a desire of fairness but rather in a desire to not deviate from the actions of others."

For voluntary contribution under conformity, in a sense, one does not require that one always contributes to the public good, but rather that one must do so if everyone else in one's reference group does. Sugden (1984) found that "when individuals care about social approval and this approval is a function of the extent to which the individual deviates from the average contribution among the peers, the approval or disapproval may be what triggers the individual to apply to the norm."

Individuals often design their actions to signal a resemblance of taste to the "mainstream," leading to conformity in behavior to multiple social norms. They tend to appear as altruistic as possible instead of focusing too much on the value of giving (Bénabou and Tirole, 2006). When a household's "social reference space" is defined to include households with similar age and education, occupation, or urban or rural location of residence, increases in giving of others in the household's reference space imply that the household's gifts would increase by an additional 20% to 30% (Andreoni and Scholz, 1998). An individual in a given social zone will be more likely to conform to the attitudes, beliefs, and behavioral propensities exhibited by the local numerical majority than by either the minority or less proximate persons (Cialdini and Goldstein, 2004). Potters (2005) finds that followers' behavior often mimics the action of the leader. Shang and Croson (2006) did an experiment on contribution to radio station. They found that when giving the reference information of how much others donate to each donor, the highest reference amount yields a significantly higher contribution to a radio station than giving no information at all. And Heldt (2005) found that if many others contributed, Swedish cross-country skiers were more likely to contribute to the track maintenance.

In the realm of reciprocity, we mean that people are reciprocal if they reward kind actions (Falk and Fischbacher, 2006). We tend to be nice to others if others have been nice to us. This is often seen in the small gifts we receive from donating to some charities. Falk (2007) found a significant effect of including a gift with the donation letter. According to his experiment, participation rate increased by two percentage points if a small gift of one post card was included and by nine percentage points if a gift of four post cards was included. Meer and Rosen (2009) find strong positive correlation between alumni's level of contribution to the university and their expectation of the likelihood of admission for their children (as a reciprocity gift). While some charities give donor material gifts, some individuals are motivated by intangible gifts from donating to charities, like prestige and reputation (Tullock, 1966). Prestige can be valuable to individuals; it may directly enlarge an individual donor's utility. Charities, by publishing donations in ranges, actively affect the prestige associated with a gift. To be known as a generous donor also increases income and business opportunities (Harbaugh, 1998). Diamond (1997) also found that alumni are motivated by the desire to pay back the university for what it contributed to their personal and professional success. In this case, reciprocity predicts that alumni donate to the university to the degree that their success derives from the university.

While most literature has put the focus of donation motivation on designed experiments, few have brought the concept into evaluating existing real scenarios. As indicated in the introduction, university alumni donation has a significant position in the pool of voluntary contribution. Research has suggested various factors that relate to a more generous behavior. Holmes (2009) suggests that wealthy alumni who live in states that allow charitable tax deductions are more generous; athletic prestige is also positively correlated with alumni contributions; female alumni and alumni living in wealthier neighborhoods within 250 miles of the college tend to be more generous; alumni who have close alumni relatives tend to give more as do alumni who participated in campus activities during their college years; and undergraduate major and occupational sector are also strong predictors of giving behavior.

III. Hypotheses

In this paper, I apply theories of conformity and reciprocity in evaluating a real scenario, motivations for university alumni donation. I classify specific factors that have shown a significant relationship with alumni donation as well as commonly used university fundraising strategies into conformity and reciprocity. While controlling for other factors, I evaluate how conformity and reciprocity affects an alumnus' likelihood to becoming a donor. Based on findings in the literature, I present a series of hypotheses as following:

1) Conformity is predicted to have a positive relationship with an individual's probability of donating to Ohio Wesleyan University in 2012. The conformity index includes factors of one's knowledge of donation behavior from his/her peers or reference groups and from other university friends and alumni.
2) Reciprocity is predicted to have a positive relationship with one's probability of donation as well. There are two kinds of reciprocity factors included in the analysis. One factor classifies as what an individual directly expect to receive from a donation. The other is a reciprocity index constructed to include one's perceived benefit from his/her education experience at the Ohio Wesleyan University. In other words, if one is expected to receive something back from the donation, one is more likely to donate; if one believes he/she

had received a strong positive educational experience at the school, one is more likely to contribute.

3) Based upon various existing studies, the results regarding the sign of the coefficient of each of the other control variables (relative disposable income, gender, experience, campus involvement, and visit are mixed. I would hypothesize that donation is a normal good, which increases as one's disposable income increases. According to Fujimoto and Park (2010), I would hypothesize that women are more generous in their contribution than men. One's experience in the job market is positively correlated with one's earnings, more specifically, in a bell shape correlation (Ehrenberg, 2006). And finally, as Holmes (2009) predicted, I would hypothesize more campus involvement and more visits would tie an individual closer to the institution, which may strengthen the effect of reciprocity.

IV. Survey Description

During November of 2012, I distributed a survey to Ohio Wesleyan University (OWU) alumni. Assuming age 22 at graduation, I randomly selected 200 OWU alumni from the university alumni database with graduation classes of 1984 to 2004, ten from each year, who are currently living in the State of Ohio. Prior to conducting the survey, I interviewed the Vice President for University Relations, Colleen Garland, to discuss the range of strategies and pledging methods OWU has been using for raising donations. The survey was sent by mail. In each envelope, I included a cover letter only to persuade respondents to reply without disclosing the purpose of the study. Respondents were also informed that the survey would take about five minutes to complete, and the result is only for academic purposes. A return envelope is included as well, with the university economics department address printed and stamped. Respondents do not need to disclose any address or personal information for the sake of anonymity.

A bank copy of the survey is attached in the Appendix Section. The survey starts with three demographic questions, asking gender, ethnicity identification, and graduation year. It then proceeds to the question whether one has made a financial donation to OWU in the year 2012. Along with the next one, "By the end of 2012, I am likely to make a (additional) donation to OWU," they are combined as the dependent variable for the later analysis. One's perceived

disposable income is measured by the question, "I feel that I have access to enough disposable income that I can afford to donate to OWU."

Reciprocity related questions include:

5b) My OWU education has helped me improve my life
6) What would you expect to receive from OWU when you make or if you were to make a donation?
7) When you were at OWU,
a. Were you on any financial aid?
b. Did OWU help you get any job while you were still a student on campus?
c. Did you receive any help from OWU faculty, staff or alumni in securing your first job or internship away from campus?

Among these reciprocity-related questions, question 6) surveys one's reciprocal motivation directly associated with this donation; the other questions survey one's reciprocal motivation in returning for the educational benefit from OWU.

Conformity related questions include:

9a). How often do you think your friends from OWU contribute to OWU?
9b). How often do most of the people in your social group donate to their alma mater?
9c). How often have you been approached by OWU staff for any kind of donation?
9d). How often have you been approached by OWU friends or alumni for any kind of donation?
9f). How often do you read the OWU magazine?

Apart from these questions, frequency of visiting OWU in the past five years has been asked. I also presented a list of ten campus activity categories for respondents to select.

In the span of four weeks, from November 1st to November 26th, 2012, I received 70 surveys back for a response rate of 35 percent. The summarized variables and descriptive statistics will be presented in the following sections.

V. Empirical Model and Data Description

In order to solve the problem and test for hypotheses, I use a binary logistic model as well as a linear model. I attempt to show the effect of donation motivation, reciprocity and conformity through evaluating the possibility of becoming a donor in the year 2012. The advantage of the binary logistic model is to offer conditional probabilities of specific outcomes to be calculated

from the estimated coefficients (Mattoo, Neagu, and Ozden, 2008). More formally, I estimate the following model of alumni's probability of donating:

$$Prob\ (Yi = 1) = \frac{e^Z}{1+e^Z} \qquad (*)$$

In (*), $Y_i = 1$ is an individual either has already made a donation to OWU or has agreed or strongly agreed to make a donation to OWU under the *logit* Z_i. *Logit* Z_i is evaluated as:

$$Z_i = \sum_k \beta_{ki} X_{ki} \qquad (**)$$

X_{ki} is a series of independent variables collected from the survey, which are coded as:

conformityindex – index 0-20, summed from:

OWU friends contribute (5 = very often, 1 = not at all; 0 = don't know)

social group contribution (5 = very often, 1 = not at all; 0 = don't know)

receive OWU staff pledge (5 = very often, 1 = not at all; 0 = don't know)

friends/alumni pledge (5 = very often, 1 = not at all; 0 = don't know)

read magazine (5 = very often, 1 = not at all; 0 = don't know)

reciprocityindex – index 0-5, summed from:

OWU experience improved one's life (2 = strongly agree that; 1 = agree; 0 = otherwise)

on financial aid when at OWU (1 = yes; 0 = otherwise)

have on campus job when at OWU (1 = yes; 0 = otherwise)

have off campus job under the help of OWU (1 = yes; 0 = otherwise)

expecttoreceive – expects to receive anything from OWU when making a donation (1= yes; 0 = otherwise)

havedisposableincome – perceived disposable income to make a donation (1 = strongly disagree, 5 = strongly agree)

gender – (1 = male; 0 = female)

experience – experience since graduation (=2012 – graduation year)

experience^2 – (2012 – graduation year)^2

visit – frequency one visits OWU in the last five years (0 = don't know, 5 = very often)

campus involvement[1]:

[1] Only greek, sports, and academic organization are kept in the analysis, since they are the three most frequently chosen ones. Out of 70, greak has a frequency of 34, sports has 28, academic organization has 23. The next is

greek – member of fraternity/sorority at OWU (1 = yes; 0 = no)

sports – member of sports team at OWU (1 = yes; 0 = no)

academicorg – member of academic organization at OWU (1 = yes; 0 = no)

In addition to the logistic model, I also design an OLS linear model to support and complement the result from the logistic model. The linear model is presented as:

$$LikelyDonor_{ik} = \beta_0 + \beta_{1*}\text{reciprocityindex}_{ik} + \beta_{2*}\text{expecttoreceive}_{ik} + \beta_{3*}\text{conformityindex}_{ik} + \beta_{4*}\text{havedisposableincome}_{ik} + \beta_{5*}\text{gender}_{ik} + \beta_{6*}\text{experience}_{ik} + \beta_{7*}\text{experience}^2_{ik} + \beta_{8*}\text{visit}_{ik} + \beta_{9*}\text{greek}_{ik} + \beta_{10*}\text{sports}_{ik} + \beta_{11*}\text{academicorg}_{ik} + \varepsilon_{ik} \quad (***)$$

In the linear model (***), while other parts resemble the logistic model, the dependent variable *likelydonor* is defined in a scale from 1 to 6, with 1 being strongly disagree to donate to OWU in the year 2012 and 5 being strongly agree to donate, and 6 of having donated to OWU already. Note that model (***) only serves as a supplementary model to interpret the result; the main result and analysis are executed according to the concept and definition of (*) the Logistic Model.

VI. Results

The table (Table 1) below presents a detailed summary of descriptive statistics for each variable. There is a 50% frequency for the dependent variable, likely donor, to be 1; hence 50% frequency for it to be 0, in the whole sample. Two-sample t tests were applied to test for the statistical differences in variables between likely donors and likely non-donors. Referring to Table 1, *havedisposableincome, experience, experience^2, visit* and *conformityindex* are the five variables that has a mean value statistically significantly different between likely donors (*likelydonor*=1) and likely non-donors (*likelydonor*=0) at the level of 0.05. Likely donors have a mean value of 1.51 higher than likely non-donors in believing that they have access to enough disposable income to contribute to OWU, on average. In other words, likely donors are more likely to perceive themselves with relatively higher income than likely non-donors. On average, likely donors also have 3.17 more years of experience since graduation than likely non-donors,

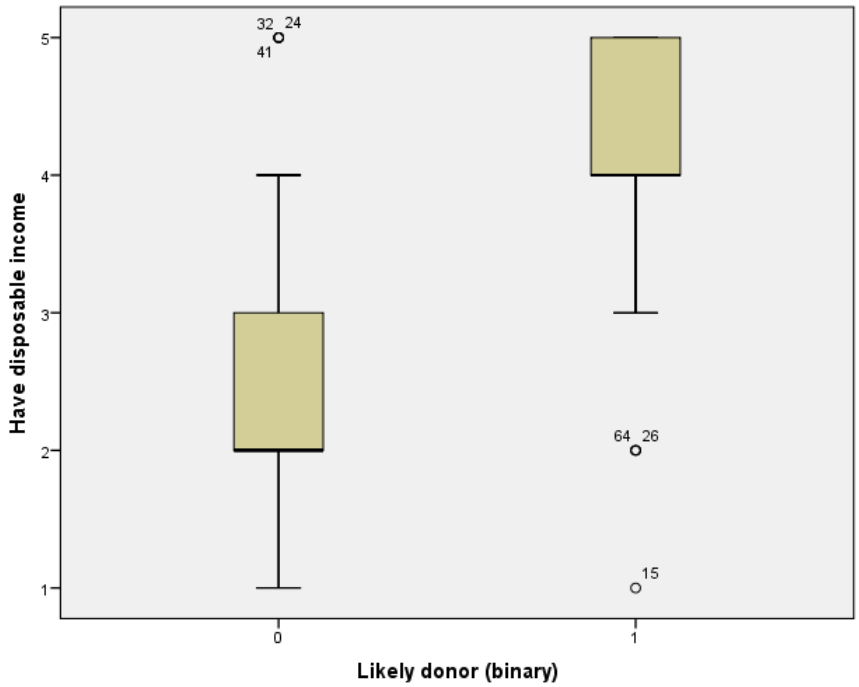
student council with a frequency of 11, followed by campus religion 10, civil groups 6. All the other choices have frequency below 3.

which on the square term for experience, it is a mean difference of 121.69. Likely donors visit the campus more frequently (on the frequency scale, 0.514 unit more on average) than likely non-donors over the past five years. Lastly, likely donors tend to have a higher tendency subject to conformity. They have a score of 1.657 more than the likely non-donors in the conformity index on average. There is no statistical significant difference for the *expecttoreceive* and *reciprocityindex* between likely donors and likely non-donors. Graphs (Graph 1-4) below also present the mean difference for variables with statistical significance (not including *experience*^{2}).

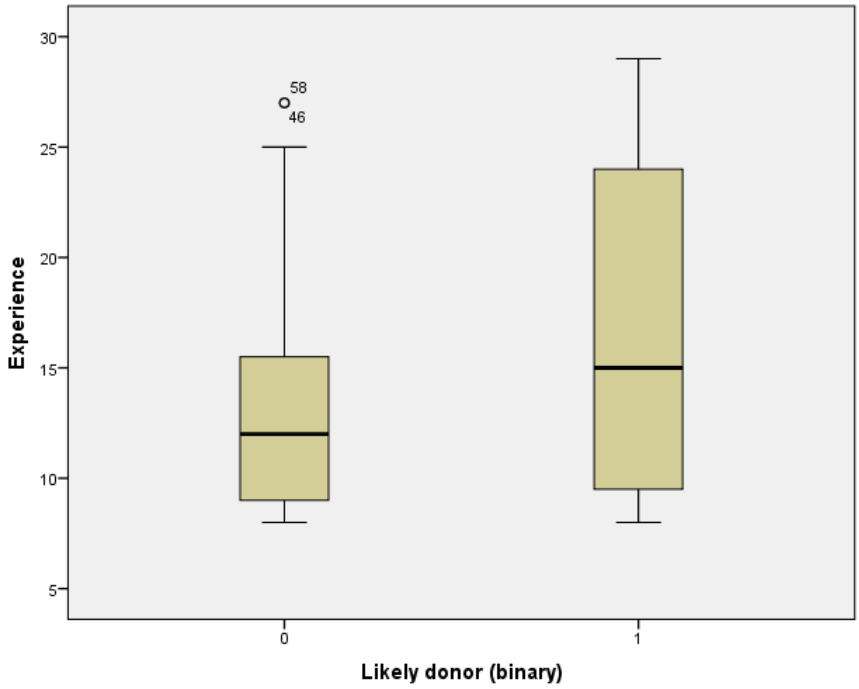
Table 1 – Descriptive Statistics

	Likely Donor = 1 (frequency = 35)				**Likely Donor = 0 (frequency = 35)**				**T-Score**
Variables	Minimum	Maximum	Mean	Std.	Minimum	Maximum	Mean	Std.	
havedisposableincome	1	5	3.94	0.998	1	5	2.43	1.267	5.554***
Gender	0	1	0.51	0.507	0	1	0.49	0.507	0.236
Experience	8	29	16.71	7.466	8	27	13.54	5.409	2.035**
experience^2	64	841	333.51	269.813	64	729	211.83	182.488	2.21**
Visit	1	4	2.34	1.027	0	4	1.83	0.857	2.274**
expecttoreceive	0	1	0.66	0.482	0	1	0.54	0.505	0.968
reciprocityIndex	0	5	2.89	1.231	1	4	2.6	0.976	1.076
conformit index	5	19	11.54	3.081	5	16	9.89	2.632	2.42**
Greek	0	1	0.51	0.507	0	1	0.46	0.505	0.472
Sports	0	1	0.49	0.507	0	1	0.31	0.471	1.465
Academicorg	0	1	0.31	0.471	0	1	0.34	0.482	-0.251
Note: * Significant at the .1 level; ** Significant at the .05 level; *** Significant at the .01 level									

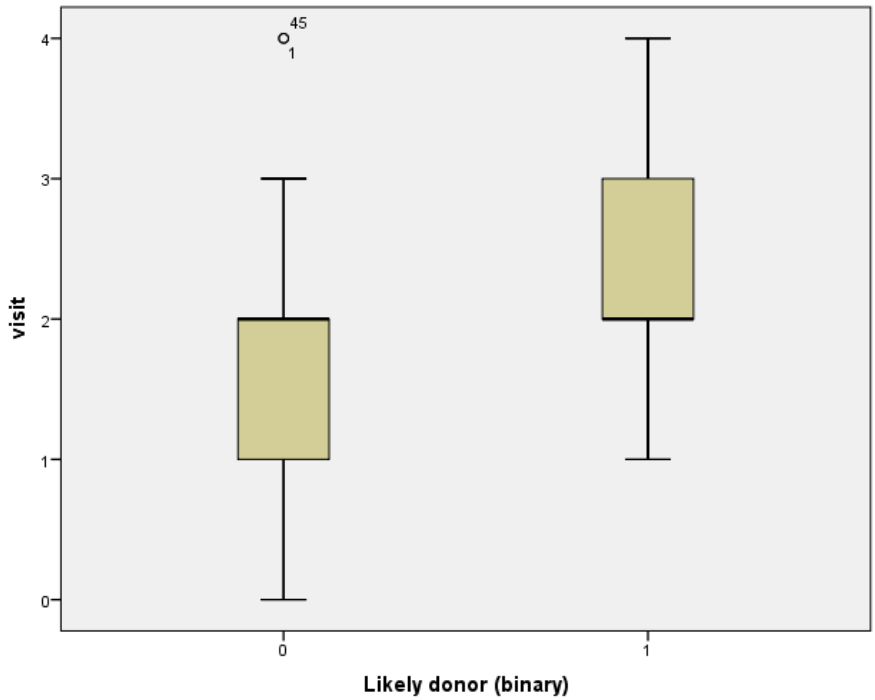
Graph 1 – Mean Difference for Disposable Income



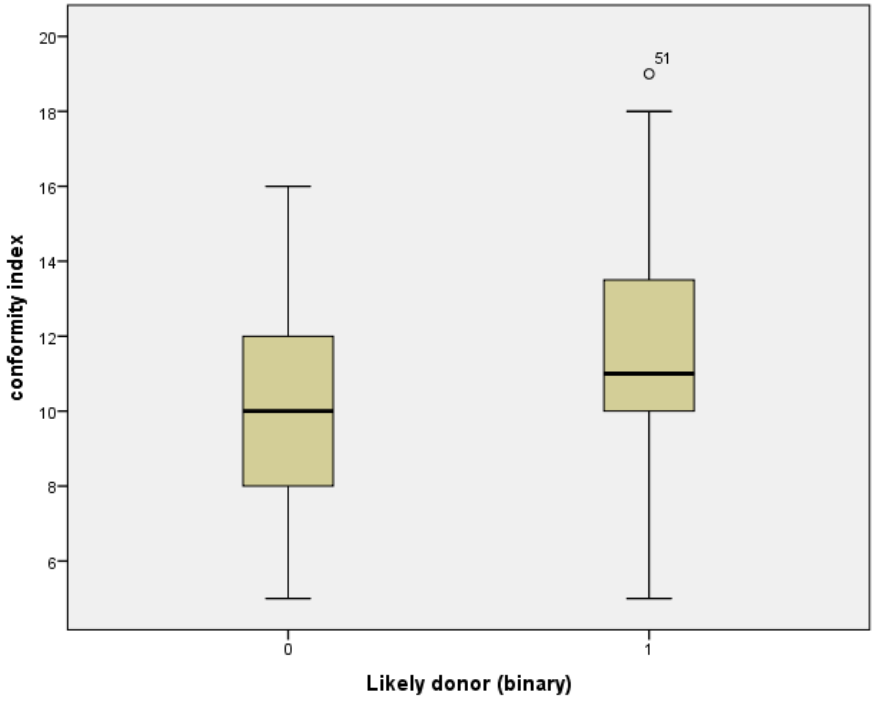
Graph 2 – Mean Difference for Experience since Graduation



Graph 3 – Mean Difference for Campus Visit in the Recent Five Years



Graph 4 – Mean Difference for Conformity Index



VII. Analysis

In order to further interpret the result and text for hypotheses, I proceed to the logistic model regression, and present the regression result here. Logistic regression analysis was employed to predict the probability that a participant would donate to OWU in the year 2012. The predictor variables were participant's gender, perceived disposable income, experience on the job market since graduation and its square term, frequency of visit to OWU in the last five years, college experience in greek life, sports team, and academic organizations, as well as the key variables – one's expectation to receive, reciprocity index, and conformity index. Detail regression result refers to the following table (Table 2). Hosmer and Lemeshow Test returns a Chi-square of 5.671 with degree of freedom 8. It has a P-value of 0.683, larger than the 5% level of significance, which supports the overall statistical significance of the model. The model was able correctly to classify 82.9% of likely non-donors and 74.3% of likely donors, for an overall success rate of 78.6%.

Table 2 also shows the logistic regression coefficient, Wald test, and odds ratio for each of the predictors. At the .05 level of significance, *havedisposableincome, experience, experience*^{2}, and visit are the only variables statistically significant. The odds ratio for *havedisposableincome* indicates that when holding all other variables constant, for each point increase on scale of one's perception of having enough disposable income to contribute (between 1 to 5), the odds of donating to OWU in the year of 2012 increases from 1.0 to 4.62. The negative coefficient of *experience* and positive coefficient of *experience*^{2} support the hypothesis that as the years of experience increasing, one is more likely to donate, *ceteris paribus*, and it peaks at 17.25 years after graduation (take the first order differentiation with respect to experience). As the literature stated, one who visits school more often tends to become a donor. On the scale of 1 to 5 indicating one's visiting school in the last five years "not at all" to "very often," each unit increase leads to an odds increase of 2.77 for one to be a donor, *ceteris paribus*. These coefficients correlate to the previously stated results from mean comparison in the two-sample t test, and strongly supports the hypotheses that one's perceived disposable income, experience, and campus visits are positively correlated to one's likelihood to donate.

For the main focus of this paper, however, coefficients of the conformity index and reciprocity factors do not return a statistically significant result. Variables *expecttoreceive, reciprocityIndex*, and *conformityindex* all present positive coefficients, meaning a positive relationship with one's likelihood of becoming a donor, but their P-values are all larger than 0.1 level of significance. This supports the null hypothesis that an alumnus does not subject to the impact of conformity and reciprocity, at under 10% level of significance. Interestingly, signs of coefficients correlate to the previously stated two-sample difference t-test result as well as predicted signs; but the level of significance for conformity index provides a discrepancy with the t-test result. One explanation can be that the limited sample size magnified the error term. In order to further look into this issue, I also executed a linear regression (with detail regression output presented in Table 3). The dependent variable *likelydonor* is measured in a scale of 1 to 6, with 1 being strongly disagree and 5 being strongly agree, with 6 being already a donor. The linear regression produced similar results as the logistic regression. But this time, the *conformityindex* shows a P-value of 0.056, which is statistically significant at 10% level. It has a positive coefficient of 0.13, meaning each one unit increase in the index of conformity, the alumnus moves up 0.13 unit in the scale of being a likely donor between the score of 1 to 6. This

time, the result corresponds to the two-sample t test results and supports the hypothesis that the thought of conformity encourages an individual to contribute.

Table 2 – Logistic Model Regression Output

	B	S.E.	Wald	df	Sig.	Exp(B)
havedisposableincome	1.53	0.4	14.656	1	0.00***	4.62
gender	-1.11	0.861	1.656	1	0.20	0.33
experience	-0.69	0.423	2.664	1	0.10*	0.50
experience^2	0.02	0.012	3.271	1	0.07*	1.02
visit	1.02	0.451	5.087	1	0.02**	2.77
expecttoreceive	1.13	0.889	1.616	1	0.20	3.10
reciprocityIndex	0.27	0.334	0.648	1	0.42	1.31
conformityindex	0.17	0.144	1.432	1	0.23	1.19
greek	-1.09	0.836	1.698	1	0.19	0.34
sports	0.73	0.854	0.722	1	0.40	2.07
academicorg	-1.26	1.037	1.484	1	0.22	0.28
Constant	-4.76	3.769	1.593	1	0.21	0.01

Hosmer and Lemeshow Test			Omnibus Tests of Model Coefficients		
Chi-square	df	Sig.	Chi-square	df	Sig.
5.671	8	0.684	45.109	11	0

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
51.931[a]	0.475	0.633

Observed		Predicted		
		Likely donor		Percentage Correct
		0	1	
Likely donor	0	29	6	82.9
	1	9	26	74.3
Overall Percentage				78.6

Note: * Significant at the .1 level; ** Significant at the .05 level; *** Significant at the .01 level

Table 3 – Linear Model Regression Output

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.525	1.739		0.877	0.384
havedisposableincome	0.843	0.148	0.58	5.678	0***
gender	-0.135	0.418	-0.034	-0.322	0.749
experience	-0.346	0.192	-1.161	-1.799	0.077*
experience^2	0.01	0.005	1.243	1.925	0.059*
visit	0.415	0.206	0.204	2.013	0.049**
expecttoreceive	0.158	0.4	0.039	0.396	0.694
reciprocityindex	0.08	0.186	0.045	0.431	0.668
conformityindex	0.13	0.067	0.194	1.948	0.056*
greek	-0.523	0.402	-0.133	-1.301	0.198
sports	0.048	0.45	0.012	0.107	0.915
academicorg	-0.68	0.456	-0.162	-1.492	0.141

R	R^2	Adjusted R^2	Mean Square	F	Sig.
.719	0.517	0.426	12.78	5.647	.000***

Note: * Significant at the .1 level; ** Significant at the .05 level; *** Significant at the .01 level

VIII. Conclusion

Much attention has been paid in the literature to signaling specific factors that relate to alumni donation behavior. Identified factors include an individual's wealth, gender, distance to the college, participation in campus activities, ties to the college after graduation, and so on. Separately, a large volume of research has focused on theories and applications of motivation behind voluntary contribution. Behind the motivations, there are two most popular norms, conformity and reciprocity, that encourage an individual to contribute voluntarily. Theories explain that apart from pure altruism, donations could resemble private goods to each individual in a way that contribution is an intangible "purchasing." Under conformity, one donates to "purchase" the belongingness to the social reference group. The social reference group is often seen as local numerical majority and peers with similar social economic background. In terms of reciprocity, one's contribution is a "purchasing" another's kindness. An individual tends to donate or donate more if there is a return gift or a thank you letter, or more intangibly, name recognition to show one's prestige and reputation. If the charity reflects the interest of the donor, or provides positive benefit to the donor, there is a positively related reciprocity involved in contribution as a repayment to the benefit.

This paper combines theories of reciprocity and conformity with university alumni donation behavior. Specifically, I identified common university pledging methods as well as donors' characters according to previous literature, and generated the conformity index, reciprocity index and an index for one's expectation to receive from donation from these factors to evaluate the effectiveness of reciprocity and conformity in the context of university alumni donation. While conformity is directly measured by the conformity index, reciprocity is divided into two parts. Reciprocity index measures one's reciprocal motivation for one's college experience; and index for expected receiving measures one's reciprocal expectation for each donation behavior. Research started with a survey to 200 randomly selected alumni from the Ohio Wesleyan University (OWU) Alumni Database. All selected participants are Ohio residents, with graduation years between 1984 and 2004, ten alumni for each graduation classes. Within the span of four weeks, I received a total of 70 surveys back, with a response rate of 35%. Binary logistic model is applied to assess the effect of conformity and reciprocity. In supplement to the logistic model, a multiple linear regression model is also employed. For the logistic model,

I coded the dependent variable, *likelydonor*, as 1 if one has already donated to OWU in the year of 2012 or is agree or strongly agree to donate, and as 0 otherwise. For the linear model, the *likelydonor* is coded as 1 being strongly disagreed to donate to 5 being strongly agreed to donate, and 6 having donated already. The paper is based on the dependent variable definition of the logistic model. Explanatory variables consist of gender, self-perceived level of disposable income, experience since graduation and its square term, frequency of visit to OWU in the last five years, and campus activities experience including Greek involvement, sports team, and academic organizations. Two-sample t test shows that the mean value of conformity index is statistically significantly different between likely donors (*likelydonor*=1) and likely non-donors (*likelydonor*=0) under 5% level of significance, but not statistically significant for the reciprocity index and the index for expected receiving. The logistic regression presented a statistically good fit model and showed a significant result for one's perceived disposable income, one's experience since college and its square term, and frequency of campus visits; and they correspond to previous research results. However, both measurements for conformity and reciprocity are not statistically significant at 10% level. On the other hand, while other regression results resemble the story of the logistic regression, the linear regression result provides a statistically significant coefficient for the conformity index at 10% level. It provided support along with the two-sample t test to the hypothesis that conformity motivation encourages an alumnus to donate back to his/her alma mater. Neither regressions nor t-test shows support for the importance of reciprocity to the alumni donation.

Overall, this research contributes to the university alumni relation department in providing valuable information in the effectiveness of pledging methodologies. It identifies specific factors that relate to the likelihood of alumni donation. This would suggest university staff could create corresponding fundraising strategies utilizing the theory of conformity and reciprocity to target alumni at different ages differently. Building upon previous work, this research extends the literature of contribution motivation to the implication on university alumni donation. Unlike most of the previous literature which measures reciprocity and conformity based on experiment design or stated contribution, this research directly evaluates the level of participation based on real situation. Instead of surveying the amount of donation, this research evaluates the probability of donation. It largely eliminates the problem of hypothetical bias. In the independent variables, I focus on relative income instead of absolute income, as well as one's

perceived relative information on social reference group behavior and perceived educational benefit rather than absolute information on how many times other's contribute. However, there are a lot of intersections between reciprocity and conformity that this research could not fully differentiate. Future research could focus on a larger sample size across campuses, surveying donation attitude across years rather than one year. In this research, I utilized indices to measure the level of conformity and reciprocity; future research can also identify specific conformity and reciprocity information and measure their impact on one's donation behavior separately.

Appendix – Survey

Please answer each of the following questions by checking the appropriate box or filling in the spaces. All answers are confidential. Please return your completed questionnaire within the next few days. Thank you!

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1) **Are you male or female?**

_____ Male _____ Female

2) **What is your racial or ethnic group?**

_____ Asian/Pacific Islander

_____ Black/African-American

_____ Caucasian

_____ Hispanic

_____ Native American/Alaska Native

_____ Other, please specify _____

3) **What year did you graduate from OWU?**

_____ Graduation Year

4) **Have you made any financial donations to OWU in 2012?**

_____Yes _____No

5) **Please indicate your agreement with each of the following statements.**

(Please check **ONE** for **EACH** of the statements based on how you feel. There are no right or wrong answers.)

Column 1 means you **STRONGLY AGREE (SA)** with the statement

Column 2 means you **AGREE (A)** with the statement

Column 3 means you have **NO OPINION** or are **UNSURE (UN)** how you feel about the statement

Column 4 means you **DISAGREE (D)** with the statement

Column 5 means you **STRONGLY DISAGREE (SD)** with the statement

	SA	A	UN	D	SD
a. By the end of 2012, I am likely to make a (additional) donation to OWU					
b. My OWU education has helped me improve my life					
c. I feel that I have access to enough disposable income that I can afford to donate to OWU					

6) What would you expect to receive from OWU when you make or if you were to make a donation?

(Please check **ALL** that apply)

_____ Nothing

_____ Thank you note

_____ Acknowledgement in OWU magazine

_____ Small bishop gift

_____ Other, please specify: _____

7) When you were at OWU,

a. Were you on any financial aid?

_____Yes _____No

b. Did OWU help you get any job while you were still a student on campus?

_____Yes _____No

c. Did you receive any help from OWU faculty, staff or alumni in securing your first job or internship away from campus?

_____Yes _____No

8) Were you in any of the following campus organizations?

(Please check **ALL** that apply)

_____ Sports team

_____ Fraternity/sorority

_____ GLBT alliance group

_____ Cultural diversity group

_____ Academic organizations / academic honor societies

_____ Civic/political groups

_____ Campus religious groups

_____ Living in any theme house

_____ University / student councils / WCSA

_____ Other, please specify: _____

9) For each of the following statements, please give us your opinion.

(Please check **ONE** column for **EACH** of the statements. There are no right or wrong answers.)

	NOT AT ALL	SOMETIMES	OFTEN	VERY OFTEN	DON'T KNOW
a. How often do you think your friends from OWU contribute to OWU					
b. How often do most of the people in your social group donate to their alma mater					
c. How often have you been approached by OWU staff for any kind of donation					
d. How often have you been approached by OWU friends or alumni for any kind of donation					
e. How often have you visited OWU over the past 5 years					
f. How often do you read the OWU magazine?					

Thank you for participating in this research. Please return your questionnaire in the envelope provided as soon as possible. It would be the best if you could complete the survey the week you received it.

Thank You!

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