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## Altruism and You: Demographic Predictors and Practical Application

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**Altruism and You:**  
**Demographic Predictors and Practical Application**  
Margaret E. Herbert  
Western Washington University  
Winter 2016

### ***Executive Summary***

Through volunteering at Domestic Violence and Sexual Assault Services (DVSAS) and by analyzing a 2013 report by Kristin Anderson, I found that parking is an issue for clients accessing services at DVSAS. In an attempt to mitigate the situation, I fundraised to create a fund for clients to use to pay for their parking meters while at the downtown office. Donation boxes were out for a month at about ten different businesses. The total amount of money raised was \$241.55. This is equivalent to more than 322 hours or 19,324 minutes of parking in the downtown area. After changing the money into quarters (barring that which was originally donated in dimes or nickels), it was officially donated to DVSAS. The fund is currently available for clients to utilize.

As a second part of this project, I used data from the General Social Survey (GSS) to determine demographic predictors of altruistic behaviors and ideologies. According to my analysis, political stance, religious affiliation, church attendance, age, marital status, income, education, and sex are the most important demographic factors to take into consideration when searching for individuals who behave or believe more altruistically. Though this of course changes with regards to the cause being advocated for, my study was unable to examine demographic predictors in relation to specific causes. The variation in independent variables' relationships to each dependent variable (altruistic actions scale, altruistic ideology scale, and percent of income donated) offers limited insight into the fluctuations in predictions that may occur based on limiting the scope of the study.

The results of the data analysis portion of this project may be put to future use tailoring fundraising or outreach attempts. As a descriptive example, attending religious services more often was positively correlated at a statistically significant level with altruistic actions, ideologies, and percent of income donated. This seems to indicate that those more devout in their religion are more altruistic. One way to reach this population could be to contact religiously affiliated locales, such as religious bookstores.

## ***Introduction***

To be altruistic is to show selfless concern for another. This can be demonstrated through interpersonal acts, donations of time and money, and various attitudes. This paper attempts to marry a demographic analysis of altruistic actions and ideologies to the process of fundraising for a local non-profit organization. Domestic Violence and Sexual Assault Services (DVSAS) is an agency focused on eradicating violence at a community level and giving support to survivors of domestic violence and sexual assault.

Domestic violence is defined as a pattern of behaviors that are used to establish and maintain control over a partner. These behaviors can include, but are not limited to, physical abuse, mental or emotional abuse, financial manipulation, sexual abuse, and coercion. Unfortunately, domestic violence is a pressing issue in Whatcom County. This is supported by community needs assessments done by the Opportunity Council (2015), the Bellingham-Whatcom County Commission Against Domestic Violence (BWCCADV) (2014), and the City of Bellingham (2012).

Volunteering as an advocacy counselor at DVSAS has given me the opportunity to interact with survivors of domestic violence and sexual assault. These interactions have, in turn, made me aware of some often overlooked barriers to accessing services at a community agency. One issue brought to my attention was parking. To give an example of a parking concern, clients at DVSAS sometimes rush through appointments so that they do not run over their allotted time at a parking meter. Anderson (2013) found that parking was one of the top three complaints that clients had about this same service agency.

DVSAS's convenient downtown location is not so convenient for parking. It can be difficult to find a space, and seemingly all of the parking within a reasonable distance is paid (see Figure 1). According to a personal communication, 87% of clients who access services at DVSAS are low or very low income (Carnahan, Ashtin. 2015. Bellingham, WA, October 22). These people often do not

have money to spare for parking meters, making it more difficult to utilize office based services.

Survivors of domestic violence may also have a partner who obsessively tracks their movements or finances, further complicating the situation.

So, I decided to create a fund dedicated to helping clients pay for parking while they access services at DVSAS. Fundraising seemed the best way to generate money for this fund, and DVSAS readily gave permission (See Appendix A). As I began exploring this process, I realized that there is a lot of depth to the question of who donates to various causes and where they can be found. This prompted me to include a data analysis section in my project.

### ***Fundraiser***

To physically collect donations, I created four inch square boxes wrapped in eye-catching paper and festooned with the DVSAS 24-hour hotline phone number and a request for donations. Once these were completed, the next task was to brainstorm locations whose customers were most likely to donate. I created a list of potential businesses with a high rate of customer turnover and whose customers were likely to be paying with cash. The finished list consisted mainly of coffee shops. Upon approaching businesses about putting out a donation box, I found that some businesses were very excited by the project, some had policies against donation boxes, some supported DVSAS in other ways, and some employees did not feel that they had the authority to accept the box. In the end approximately ten businesses were able to put out a donation box.

In line with the agreed upon timeframe, I returned to collect my donation boxes after about four weeks. There were some obvious differences in the amount of money each business collected. Boxes that were not placed near a cash register yielded much less money. There were also differences based on business type and the subculture of each business's customer base. All in all, the fundraiser collected \$241.55. This equates to more than 322 hours, or 19,324 minutes, worth of parking in the downtown area.

After counting the donated money, it was converted to quarters (excluding change that was donated in nickels and dimes) in order to be most useful at the meter. The money was officially donated to DVSAS and the fund is now available for client use. The DVSAS staff decided that it would be most appropriate to keep the fund behind the front counter, and create a sign alerting clients to the fund's existence.

### ***Data Analysis***

As noted earlier, my involvement in this fundraiser sparked an interest in investigating broader patterns surrounding altruism. I decided to expand upon my project by examining demographic predictors of altruistic actions and altruistic ideologies. The data analysis is exploratory, meaning that there is no focal independent variable that is being examined. Through a review of literature linking demographic factors and various facets of altruism, I became familiar with prior research. Gao and Peck's (2009) article gave me particular insight into which demographic variables I should include as predictors in my study.

### *Data and Methods*

The data that I used in my study was limited to the General Social Survey (GSS). From 1972-1994 (with a few exceptions), the survey was administered yearly by the National Opinion Research Center (NORC), and has since been administered every two years. It is a full-sample probability survey of non-institutionalized, American individuals age 18 and up. Questions include, but are not limited to, demographic data, opinions, ideologies, and various modules designed to examine a particular issue or concept (e.g. environmental views). GSS altruism questions include monetary and temporal donations as well as more abstract examples of altruism (e.g. allowing a stranger to cut in line). Due to variation in questions asked each year, this study only utilizes data from years 2002, 2004, 2012, and 2014.

Independent variables in this study include age, church attendance, years of education, self-rated happiness, self-rated health, income, sex, race, political stance, religious affiliation, and marital status (See Table 1). Age, frequency of church attendance, years of education, and income (age, attend, educ, and coninc) were used as is. Income was reported in dollars. Self-rated happiness (happy) was collapsed into a dichotomous happy/not happy variable (happy=1). Self-rated health (health) was reverse coded so that 1=poor health, 2=fair, 3=good, and 4=excellent. Sex (sex) and race (race) were recoded as dichotomous variables where 1=male and white, respectively. Political stance, originally a seven-point scale, was collapsed into liberal, moderate, and conservative and turned into three separate dummy variables. Religious affiliation and marital status were recoded into dummy variables so that there was a separate variable for each original category. This being said, the only religious affiliations specifically examined were Protestant, Catholic, Jewish, Muslim, Buddhist, Hindu, no religion, and other religion. Although other affiliations were reported, they were collapsed into the “other” category.

In terms of dependent variables, I constructed three variables to offer slightly different perspectives into altruism. The altruistic actions scale summed eleven equally weighted variables (See Appendix B) that explored how often in the past year the respondent had participated in a selfless activity. These included things such as how often the respondent had volunteered in the past year and how often they had helped someone carry an item (e.g. groceries). The responses ranged from 0, I have not done this in the past year, to 5, I do this more than once a week. The summed scale then theoretically ranges from 0 (I have not done any of these things in the past year) to 55 (I do all of these things more than once a week). In actuality, the scale ranged from 0 to 46, with a mean of 13.40 and a standard deviation of 6.67. 3485 cases were available to analyze.

The second constructed variable is a scale of altruistic ideologies. This scale summed responses to four equally weighted questions (See Appendix B). Respondents were asked to what

degree they agreed or disagreed with statements. Responses (ranging 1-5) were recoded so that the higher number was associated with the more altruistic response. This means that the scale can theoretically range from 4 (low altruistic ideology) to 20 (high altruistic ideology). The summed scale did in fact range from 0 to 20, with a mean of 14.16 and a standard deviation of 2.32. 3507 cases were available to analyze.

The third constructed variable is percent of income donated. This variable uses total household donations (in dollars) to a charitable or religious cause (*valgiven*) and divides it by total income (also in dollars; *coninc*) before multiplying it by 100 to calculate the percent of income given. While percentages range from 0 to 22, the mean was 2.3%, with a standard deviation of 3.89. Because the total donation variable is only available in 2012 and 2014, the total number of cases analyzed is 1233.

Data analysis was conducted using SPSS, a statistical package. Ordinary least squares (OLS) regression was used because all three of the dependent variables are continuous. Running an OLS regression yields a coefficient labeled 'B' which is unstandardized and refers to the change that occurs in the dependent variable for every unit increase of the independent variable. A second coefficient, beta, is standardized. This means that all of the independent variables exist on the same scale, making it is easier to determine the variable that exerts the greatest change on the dependent variable. When analyzing a variable that has been recoded into several dichotomous or dummy variables, a category must be omitted in order to have a comparison point. In this study 'married,' 'Protestant,' and 'politically moderate' are omitted.

### *Results*

When regressing the independent variables onto the altruistic actions scale (See Table 2) we see that not all of the results are statistically significant. However, men are more likely than women to commit an altruistic act and both liberals and conservatives are more likely to do altruistic things

than the politically moderate. Income, education, and church attendance are all also positively correlated with the altruistic actions scale. For each additional year of education received, the altruistic actions scale increases by .274. Age is the only statistically significant variable that is negatively associated with committing altruistic acts. Older people are less likely than younger people to do altruistic things; for each additional year of life, the altruistic actions scale decreases by .05. When examining the Beta coefficient, it becomes apparent that educational attainment, frequency of church attendance, and age have the highest magnitude of an effect on the altruistic actions scale. The R square value is .085, meaning that 8.5% of the variance in the altruistic actions scale can be explained by the independent variables.

In terms of the altruistic ideology scale, there are some different results. Sex, education, church attendance, Catholicism, Buddhism, Hinduism, being divorced, age, and being politically liberal are statistically significant when regressed onto the altruistic ideology scale (See Table 3). Women are more likely than men to hold altruistic ideologies, as are those who attend church more, older people, and those with higher educational attainment. For each additional year of education, the ideology scale increases by .071; for each additional year of life, the scale increases by .012. Liberals are more likely than moderates to hold altruistic ideologies, just as divorced people are more likely than their married counterparts to hold altruistic ideologies. Catholics and Buddhists are less likely than Protestants to hold altruistic ideologies, but Hindus are more likely than Protestants to hold altruistic ideologies. By examining the Beta values, it comes to light that being a woman, attending church often, and being politically liberal have the largest magnitude of an effect on holding altruistic ideologies. The R square value is .085, meaning that 8.5% of the variance in the altruistic ideologies scale can be explained by the independent variables.

Lastly, when examining percent of income donated, we see that church attendance, being Catholic, being divorced, age, and being politically conservative are statistically significantly

correlated (See Table 4). Attending church more often and being older is positively correlated with donating a larger portion of income. For each additional year of life, respondents donate .016% more of their income. Divorced people donate less of their income than married people, and conservatives donate more than the politically moderate. Beta shows that church attendance has the largest effect on the percent of income donated. R square is .136, showing that the included independent variables explain 13.6% of the variation in percent of income donated.

### *Limitations*

The data analysis of this study was limited by the questions asked in the GSS. The altruistic actions scale in particular could be skewed toward younger, male populations. This is because some of the questions (for instance, how often have you given up your seat on the bus) are tied up with cultural gender norms and the vitality of youth (pregnant women and the elderly get priority seating on most public transit). Additionally, the sample size when analyzing percent of income donated was relatively small because the questions were only available in two survey years. The reported amount of money donated skews toward religious attendance because the question is worded in such a way that donations to charitable and religious organizations are treated in the same manner. As stated throughout, the statistically significant demographic predictors may change based on specific causes, actions, or ideals that are examined. The scope of this study was not narrow enough to explore these variations. There may also be independent variables not included in this study that better explain variation in altruism.

### *Discussion*

It can be difficult to make sense of a string of numbers. However, the findings discussed above can be applied, for example, to fundraising efforts or community outreach. Of course much is dependent upon the specific cause being advocated for, but this data shows that there are target populations that are more likely to be altruistic. This study shows that politically minded, religiously

devout, educated, high earning people may be the ideal group to pursue. Select marital statuses, genders, and ages that should be catered to vary based upon the specifics of the cause. For instance, fundraisers could focus more heavily on religiously affiliated locales, such as religious bookstores, or in areas that higher income people are more likely to frequent.

### ***Conclusion***

Analyzing altruistic behaviors and ideologies creates a way for community organizations to broaden their base of donor support. In turn, this strengthens and expands the services that they are able to offer to their clients. While the fundraising aspect of this project offered valuable practical experience and yielded a tangible positive effect on the community, the data analysis shows that there are many ways to improve the process and the results. It is my hope that my fundraising efforts create a difference in someone's life, while my data analysis may be utilized in creating a difference on a larger scale.

Tables:

<i>Table 1: Descriptives</i>			
<i>Variable</i>	<i>Mean/ Percentage</i>	<i>Standard Deviation</i>	<i>N</i>
Liberal	27.0%	--	3507
Moderate	37.8%	--	3507
Conservative	32.5%	--	3507
Health	2.98	.84	3507
Happiness	87%	--	3507
Married	47.1%	--	3507
Widowed	7.3%	--	3507
Divorced	15.9%	--	3507
Separated	3.6%	--	3507
Never Married	26.1%	--	3507
Sex (male)	48.3%	--	3507
Race	77.9%	--	3507
Protestant	48.7%	--	3507
Catholic	24%	--	3507
Jewish	1.3%	--	3507
None	17.5%	--	3507
Other	1.1%	--	3507
Buddhism	.7%	--	3507
Hinduism	.3%	--	3507
Muslim/Islam	.3%	--	3507
Age	47.12	14.00	3507
Income	50,811.06	45,910.33	3507
Education	13.67	3.03	3507
Church Attendance	3.49	2.765	3507
Altruistic Ideologies	14.16	2.32	3507
Altruistic Actions	13.40	6.67	3485
Percent of Income Donated	2.39	3.89	1233

<i>Tables 2: Results of OLS Regression Analysis Predicting the Effects of Demographics on Altruistic Actions</i>		
<i>Variable</i>	<i>B</i>	<i>Beta</i>
Sex (Male)	.539* (.223)	.040
Income	5.970 E-6* (.000)	.041
Education	.274*** (.042)	.124
Church Attendance	.477*** (.046)	.198
Catholic	-.462 (.269)	-.030
Buddhism	.472 (1.249)	.006
Hinduism	-.406 (1.796)	-.004
Divorced	.322 (.332)	.018
Age	-.050*** (.008)	-.127
Liberal	.970*** (.277)	.065
Conservative	.687** (.264)	.048
Constant	9.286*** (.821)	
R <sup>2</sup>	.085	

Note: Standard errors for coefficients are in parentheses

Only variables significant in one or more regression analysis are included, control variables include Race, Jewish, No religion, Other Religion, Muslim/Islam, Widowed, Separated, Never Married, Health, and Happiness

\*p<.05, \*\*p<.01, \*\*\*p<.001

Number of Cases=3485

<i>Tables 3: Results of OLS Regression Analysis Predicting the Effects of Demographics on Altruistic Ideologies</i>		
<i>Variable</i>	<i>B</i>	<i>Beta</i>
Sex (Male)	-.697*** (.077)	-.150
Income	1.153 E-6 (.000)	.023
Education	.071*** (.014)	.093
Church Attendance	.107*** (.016)	.128
Catholic	-.212* (.093)	-.039
Buddhism	-1.073* (.451)	-.039
Hinduism	1.272* (.649)	.032
Divorced	.235* (.115)	.037
Age	.012*** (.003)	.088
Liberal	.539*** (.096)	.103
Conservative	-.088 (.091)	.018
Constant	12.518*** (.284)	
R <sup>2</sup>	.085	

Note: Standard errors for coefficients are in parentheses

Only variables significant in one or more regression analysis are included, control variables include Race, Jewish, No religion, Other Religion, Muslim/Islam, Widowed, Separated, Never Married, Health, and Happiness

\*p<.05, \*\*p<.01, \*\*\*p<.001

Number of Cases=3507

<i>Tables 4: Results of OLS Regression Analysis Predicting the Effects of Demographics on Percent of Income Donated</i>		
<i>Variable</i>	<i>B</i>	<i>Beta</i>
Sex (Male)	-.119 (.213)	-.015
Income	1.513 E-6 (.000)	.028
Education	-.003 (.040)	-.002
Church Attendance	.434*** (.046)	.305
Catholic	-.855** (.273)	-.091
Buddhism	.183 (1.172)	.004
Hinduism	-.562 (1.529)	-.010
Divorced	-.993 ** (.313)	-.096
Age	.016 (.009)	.061
Liberal	.118 (.260)	.014
Conservative	.629* (.267)	.074
Constant	.269 (.813)	
R <sup>2</sup>	.136	

Note: Standard errors for coefficients are in parentheses

Only variables significant in one or more regression analysis are included, control variables include Race, Jewish, No religion, Other Religion, Muslim/Islam, Widowed, Separated, Never Married, Health, and Happiness

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Number of Cases=1233

Appendices

Appendix A:

February 22, 2016

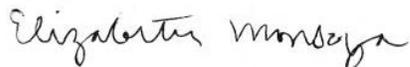
To Whom It May Concern;

This letter confirms that Margaret Herbert has sought and been granted permission to conduct a fundraising project for Domestic Violence and Sexual Assault Services (DVSAS).

Ms. Herbert has consulted with Elizabeth Montoya, 24-Hour Services Supervisor, and Katie Rose, Community Engagement Specialist on this fundraising project and agrees to maintain communication with both staff members as her project progresses. We are excited to be involved with Ms. Herbert's efforts and hope to support her in any way that we can.

Any questions may be directed to Elizabeth Montoya at (360) 671-5714 or [elizabethm@dvsas.org](mailto:elizabethm@dvsas.org).

Sincerely,



Elizabeth Montoya  
24-Hour Services Supervisor  
Domestic Violence and Sexual Assault Services

## Appendix B:

*Age (age)*: Respondent's age

*Altruistic Actions Scale* – Summed scale of the following:

During the past 12 months, how often have you done each of the following things:

- A. Donated blood (givblood)
- B. Given food or money to a homeless person (givhmlss)
- C. Returned money to a cashier after getting too much change (retchnge)
- D. Allowed a stranger to go ahead of you in line (cutahead)
- E. Done volunteer work for a charity (volchrty)
- F. Given money to a charity (givchrty)
- G. Offered your seat on a bus or in a public place to a stranger (givseat)
- H. Looked after a person's plants, mail, or pets while they were away (helpaway)
- I. Carried a stranger's belongings, like groceries, a suitcase, or shopping bags (carried)
- J. Given directions to a stranger (directns)
- K. Let someone you didn't know well borrow an item of some value like dishes or tools  
(loanitem)

*Altruistic Ideologies Scale* – Summed scale of the following:

Please tell me whether you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with the following statements:

- A. People should be willing to help others who are less fortunate (othshelp)
- B. Those in need have to learn to take care of themselves and not depend on others  
(careself)
- C. Personally assisting people in trouble is very important to me (peoptrbl)

D. These days people need to look after themselves and not overly worry about others  
(selffirst)

*Church Attendance (attend)*: How often do you attend religious services?

*Education (educ)*: What is the highest grade in elementary school or high school that you finished and got credit for?

*Happiness (happy)*: Taken all together, how would you say things are these days - would you say that you are very happy, pretty happy, or not too happy?

*Health (health)*: Would you say your own health, in general, is excellent, good, fair, or poor?

*Income (coninc)*: Inflation-adjusted family income.

*Marital Status (marital)*: Are you currently -- married, widowed, divorced, separated, or have you never been married?

*Percent of Income Donated* –  $(\text{Total donations}/\text{income}) * 100$

*Income (coninc)*: Inflation-adjusted family income.

*Total Donations (valgiven)*: Altogether, what was the total dollar value of all donations you and your immediate family made in the past year towards religious and charitable purposes?

*Political Stance (polviews)*: We hear a lot of talk these days about liberals and conservatives. I'm going to show you a seven-point scale on which the political views that people might hold are arranged from extremely liberal - point 1 - to extremely conservative - point 7. Where would you place yourself on this scale?

*Race (race)*: What race do you consider yourself?

*Religious Affiliation (relig)*: What is your religious preference? Is it Protestant, Catholic, Jewish, some other religion, or no religion?

*Sex (sex)*: Code respondent's sex

*References:*

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