Charitable Giving by Married Couples Revisited

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ABSTRACT

This paper investigates the effect of gender differences and household bargaining on charitable giving. I replicate the study of Andreoni, Brown, and Rischall (2003) using a different data set—the recently available Panel Study of Income Dynamics (PSID) supplement on charitable giving—and test the sensitivity of their results to inclusion of additional control variables and the endogeneity of the tax price of giving. First, focusing on singles, I find that males and females have significantly different tendencies toward giving to different areas of charitable activity. Next, comparing households in which husband and wife make a joint decision on donations with those in which couples separately decide or assign a sole decision-maker, I show that bargaining over giving increases the amount of charitable contributions by almost 7 percent.

I. Introduction

The determinants of giving have long been the subject of intensive economic research. The established stylized facts in the literature are that better educated individuals with higher incomes are more likely to give and that the tax price of giving has a negative effect on the amount of charitable gifts (Andreoni 2006). Results on other determinants of giving, in particular the effects of gender and marriage, are mixed. For example, Duncan (1999) finds that married people tend to give more, whereas Lankford and Wyckoff (1991) conclude that marital status is not a significant determinant of giving. Piper and Schnepf (2008) find that women are more generous than men, whereas Yen (2002) finds that gender does not have a significant effect on giving. Andreoni and Vesterlund (2001) argue that males and females significantly differ in the way they respond to changes in the tax price of

giving. They show that males are more generous than females, but only when the price of giving is relatively low.

In a seminal paper, Andreoni, Brown, and Rischall (2003), hereafter ABR, investigate the effect of gender differences in giving, using pooled cross-sectional data from the household giving surveys conducted in 1992 and 1994 by the Gallup Organization, and commissioned by Independent Sector. This survey series is also known as the Survey of Giving and Volunteering in the United States (SGV). They show that males and females have different tastes for giving. Among single people, females are more likely to donate than males to every charity category except adult recreation. Females also tend to spread their contributions to more charity categories by giving less to each category. Using the SGV, ABR argue that gender differences in charitable giving carry over to married couples and that married couples do not behave as if they are governed by a single utility function. They find that for married couples, joint decisionmaking on charitable donations is costly and reduces total contributions, on average by 6 percent. They also show that when a particular spouse is the sole decisionmaking authority on allocating money to charities, the couple's giving decision seems to reflect his or her own tastes. When the giving decision is made jointly, however, the couple's decision mostly reflects the husband's preferences.

In this paper, I reexamine the findings of ABR using a recently available charitable giving supplement of the Panel Study of Income Dynamics (PSID). Since this supplement includes all the variables that ABR used, it offers a valuable way to check the robustness of ABR's results. I also test the sensitivity of their results to inclusion of extra control variables and the possible endogeneity of the tax price of giving. First, I investigate gender differences in giving. When total amount of contributions are considered, I find that men and women behave similarly. However, males' and females' tendencies toward giving are significantly different when different categories of giving are considered. Next, I examine the effect of marriage and household bargaining. Like ABR, I find significant differences depending on whether the husband or wife is the primary decisionmaker on charitable contributions. Husband-deciding households tend to concentrate their giving on few charitable categories, whereas wife-deciding households spread their contributions among different categories. Husband-deciding households are also much more responsive to changes in the tax price of giving. In contrast to ABR, however, I find that bargaining over charitable gifts increases households' contributions by around 7 percent, and that when couples decide jointly, the compromise behavior is far from the preferred choices of husbands.

II. Data

This paper uses a newly available nationally representative household survey on the motivations for charitable giving in the U.S: the Center on Philanthropy Panel Study (COPPS), the Philanthropy Module of the PSID. The 2003 wave of data contains detailed information on household giving, volunteering, and various indicators of relevant motivations for a sample of 7,822 households. The unique feature of the 2003 wave is that it also includes a question on who in the

household is the primary decisionmaker in allocating money to charities.[1] Compared with the SGV, the COPPS data not only have a larger sample size but also do not suffer from missing data. In the SGV, this problem is particularly severe in questions about giving for disaggregated purposes. Wilhelm (2006) reports that around 35 percent of the SGV respondents in 1996 have missing data in at least one of the questions about giving toward disaggregated purposes,[2] whereas in the COPPS, the ratio is only 1 percent. Moreover, compared with the SGV, the response rate for the COPPS is much higher. Kirsch, McCormack, and Saxon-Harold (2001) report that the response rates for the SGV (1996) and the COPPS (2001) are 19 percent and 66 percent, respectively.[3] Wilhelm (2006, 2007) also argues that the quality of the COPPS data may be superior to that collected in other household surveys of charitable giving because of the PSID staff's experience in collecting data and the respondents' experience with the survey procedure.

Following Wilhelm (2006), I use only PSID's nationally representative sample (n = 4,887) for the empirical analysis. In the COPPS, 69 percent of the households reported having contributed money for charitable causes during the survey year, with an average contribution of $1,348. This amount corresponds to a 3 percent average contribution as a percentage of household income. The data contain all the relevant variables in order to replicate ABR's analysis except for information on the tax price of giving. I estimate the tax price of giving as 1-t for those who itemize deductions and 1 for those who do not, where t is the marginal tax rate that the donor faces.[4] Since the data do not report marginal tax rates, I calculate this variable for each household using information on itemization status, number of household members, gross income, probable filing status, and the federal and state tax schedules for the relevant year.

The main obstacle in identifying the possible gender differences in charitable giving is the lack of individual level survey data. Since the survey obtains information at the household level, following ABR, I use the information on single males and single females. Excluding married couples, and couples living together yields a subsample of 1,793 individuals, 701 of whom are single males. Among singles, 53 percent of males and 56 percent of females were donors. Among contributors, the average contribution was $602 for males and $618 for females. Moreover, relative to their incomes, females contributed more to charities than males did. On average, they gave 3 percent of their incomes to charities compared with 2 percent for males. For married couples (n = 2,970), a unique question in the survey enables me to identify who within the household is the primary decisionmaker in allocating money to charities; the question is "Who in your family was involved in decisions about

1. The 2001 wave does not include this information. The 2005 wave was not available when this paper was written.
2. Although it is not possible to determine whether the same rate also applies to the 1992 and 1994 editions of the SGV, ABR report that they had to eliminate roughly 27 percent of their total sample due to missing data in key variables.
3. The response rates for the 1992 and 1994 editions of the SGV were not published.
4. The marginal tax rate is calculated as the sum of the state and federal marginal tax rates, corrected for the fact that charitable deductions were not allowed in the state income tax in some states as of 2003. These states were Indiana, Massachussets, Ohio, Connecticut, Michigan, New Jersey, Illinois, Pennsylvania, Lousiana, and West Virginia and identified through NBER's TAXSIM data, available at http://www.nber.org/~taxsim/charity-state.

how much support to give individual charities in 2002?". However, in contrast to the SGV, this question is asked only to those couples who have contributed money to charities. Given their answers to this question, married couples are categorized into four groups: husband-deciders (n = 311), wife-deciders (n = 600), joint-deciders (1,167), and separate-deciders (n = 207).[5] The household characteristics of these groups are generally in line with the sample statistics presented in ABR except that joint-deciders donate on average more than 4 percent of their income to charities, which is considerably higher than the other groups.[6]

III. Gender Differences

Following ABR's analysis, I first look for gender differences in the decision to give. The first four columns of Table 1 report coefficient estimates and marginal effects of probit estimation of the probability of giving for each sex. As expected, the tax price negatively affects the probability of giving for both single men and single women, while the coefficient on the income variable is highly significant and positive for both. For both males and females, education, age, and regular attendance of religious services have a significant and positive effect on the propensity to give, whereas the effects of race and family size are insignificant. Comparing single male and single female equations, in contrast to ABR's result, the hypothesis that the equations for the propensity to give are the same for males and females cannot be rejected at conventional significance levels ($\chi^2(11) = 5.21$, p-value = 0.920).

Next, I turn my attention to the sizes of contributions. Following ABR, given the censoring of the charitable donations at zero, I estimate a tobit model, where the dependent variable is the logarithm of the dollar amount of contributions censored at zero.[7] I report the parameter estimates and the associated marginal effects for this model in the last four columns of Table 1. In both the male and female tobit models, age, educational attainment, attendance of religious services, and household income are positively associated with the total amount of charitable contributions. Again in contrast to ABR's results, I fail to reject the hypothesis that the contribution amount equations of males and females are the same ($\chi^2(11) = 5.23$, p-value = 0.919).

Although the above analysis suggests that males' and females' giving equations are similar, this result may also be misleading since regressions consider aggregate contribution amount. Do single men and single women behave similarly when allocating money across different areas of charitable activity? The COPPS enables me

5. The number of married donors for which decisionmaking authority is identified is 2,300. There are missing data for 15 observations for this group. Notice also that the SGV data contain information on husband-deciding, wife-deciding, and jointly deciding households, but not on separate-deciders. In the SGV, among those who reported "who decides," 19 percent are husband-deciders, 29 percent are wife-deciders, and 52 percent are joint-deciders. In the COPPS, 14 percent of the couples are husband-deciders, 26 percent are wife-deciders, 51 percent are joint-deciders, and 9 percent are separate-deciders. Hence, the fractions are similar in the two surveys.
6. In contrast to the COPPS data, in ABR's data, average donation by husband-deciders is much higher compared with joint-deciders or wife-deciders.
7. I add the constant one to the contribution amount so that the transformed variable is still censored at zero.

Table 1
Probability of Giving and Total Amount of Contributions by Singles

| | Probability of giving (probit) | | | | Total contributions (tobit) | | | |
| | Males | | Females | | Males | | Females | |
	Coefficient	Marginal effect	Coefficient	Marginal effect	Coefficient	Marginal effect	Coefficient	Marginal effect
In (price)	−1.819	−0.178	−1.838	−0.718	−4.961	−2.251	−5.658	−2.717
	(0.439)***	(0.173)***	(0.383)***	(0.149)***	(1.290)***	(0.585)***	(1.078)***	(0.517)***
In (income)	0.363	0.143	0.342	0.134	1.391	0.631	1.418	0.681
	(0.071)***	(0.028)***	(0.055)***	(0.021)***	(0.238)***	(0.108)***	(0.181)***	(0.087)***
Age	0.021	0.008	0.021	0.008	0.081	0.037	0.082	0.040
	(0.004)***	(0.001)***	(0.002)***	(0.001)***	(0.011)***	(0.005)***	(0.008)***	(0.004)***
High school graduate	0.187	0.073	0.309	0.119	0.847	0.392	1.307	0.643
	(0.171)	(0.067)	(0.123)**	(0.047)**	(0.593)	(0.269)	(0.420)***	(0.202)***
Attended college	0.405	0.156	0.694	0.253	1.897	0.916	2.707	1.426
	(0.179)**	(0.067)**	(0.137)***	(0.045)***	(0.619)***	(0.281)***	(0.454)***	(0.218)***
College graduate	0.753	0.278	0.837	0.293	2.703	1.348	3.204	1.764
	(0.187)***	(0.062)***	(0.155)***	(0.046)***	(0.629)***	(0.285)***	(0.498)***	(0.239)***
Hispanic	−0.623	−0.242	−0.124	−0.049	−2.129	−0.837	−0.218	−0.103
	(0.597)	(0.213)	(0.390)	(0.155)	(1.777)	(0.806)	(1.344)	(0.645)

Table 1 (*continued*)

| | Probability of giving (probit) | | | | Total contributions (tobit) | | | |
| | Males | | Females | | Males | | Females | |
	Coefficient	Marginal effect	Coefficient	Marginal effect	Coefficient	Marginal effect	Coefficient	Marginal effect
Black	−0.094	−0.037	−0.189	−0.075	−0.327	−0.146	−0.488	−0.229
	(0.181)	(0.072)	(0.123)	(0.049)	(0.609)	(0.276)	(0.404)	(0.194)
Churchgoer	0.798	0.300	0.584	0.225	3.016	1.457	2.350	1.132
	(0.119)***	(0.041)***	(0.089)***	(0.033)***	(0.372)***	(0.169)***	(0.282)***	(0.135)***
Family size	0.004	0.002	−0.026	−0.010	0.061	0.028	−0.123	−0.059
	(0.070)	(0.028)	(0.041)	(0.016)	(0.230)	(0.104)	(0.133)	(0.064)
Constant	−5.280		−5.108		−19.254		−19.495	
	(0.739)***		(0.568)***		(2.496)***		(1.895)***	
Standard error	—		—		4.167		4.043	
					(0.172)***		(0.129)***	
Number of observations	698		1,089		698		1,089	
Number of observations censored	—		—		325		476	
Log-likelihood	−359.903		−568.894		−1,276.542		−2,056.088	

Note: Standard errors are parentheses. Marginal effects for the tobit model are calculated conditional on the outcome being uncensored.
*** estimate is significant at a 1 percent level.
** estimate is significant at a 5 percent level.

to identify gender differences in 11 different areas of charitable activity. Table A3 shows that females are more likely than males to give to every single category of charity except for combined purpose and neighborhood organizations. Although not reported, conducting tests for the equality of male and female probability of giving and contribution amount equations, I find that the gender differences are persistent across different charitable areas. The hypothesis that the probability of giving equations are the same for males and females is rejected for all charity categories, except for religious, combined purpose, health, and other unnamed organizations. I also reject the hypothesis that the contribution amount equations for males and females are the same for all charity categories, except for health and religious organizations. These results are consistent with the corresponding results of ABR.

IV. Married Couples

Since the COPPS reports the decisionmaking authority only for households that have donated money, I cannot replicate ABR's analysis on married couples' likelihood of making a gift. Hence, I focus only on the total amount of contributions by married couples. Table 2 reports the ordinary least squares (OLS) estimates of the contribution amount equations for the four possible types of couples. As expected, the tax price effects are significantly negative, while household income and the respondent's regular attendance of religious services positively affect the contribution amount. The other variables have their expected signs but are mostly insignificant. I also conduct tests across all pairings of equations for married couples. Similar to ABR's finding, I find that the giving behavior of wife-deciders and joint-deciders are significantly different ($\chi^2(15) = 45.35$, p-value $= 0.000$). In contrast to ABR's finding however, I also find significant difference between husband-deciders and joint-deciders ($\chi^2(15) = 39.59$, p-value $= 0.001$).

Next, I examine giving to different areas of charitable activity by married couples and conduct tests across all pairings of equations. The results in Table 3 show that the predicted contribution amounts of husband-deciding and wife-deciding couples are significantly different in every type of charity, except for art organizations.[8] Another finding is that the predicted contribution amount of wife-deciders is significantly different from the joint-deciders in every charity category. In the SGV data, ABR also report that while husband-deciding couples concentrate their giving to few areas of charitable activity, wife-deciding couples tend to spread their giving among several types of charities. Furthermore, when couples decide jointly, the concentration is not significantly different from when the husband decides alone, but is significantly different from when the wife decides alone. In order to test whether the same result also applies using the COPPS, I calculate a Herfindahl index of the concentration of giving. Following ABR, this index is defined as

(1) $HI = \sum_c s_c^2$ for $c = 1,...,11$

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8. Although not reported, husband-deciders tend to donate more than wife-deciders to each charitable category except for art and environmental organizations.

Table 2

Total Amount of Contributions by Married Couples

	Decisionmaking authority			
	Husband	Wife	Joint	Separate
ln (price)	−1.592	−0.732	−1.438	−1.073
	(0.441)***	(0.327)***	(0.242)***	(0.481)**
ln (income)	0.181	0.450	0.183	0.510
	(0.120)	(0.092)***	(0.061)***	(0.145)***
Age of husband	0.008	0.005	0.021	0.012
	(0.015)	(0.010)	(0.009)**	(0.019)
Age of wife	0.023	0.027	0.003	0.016
	(0.015)	(0.011)**	(0.009)	(0.020)
Husband high school graduate	−0.068	0.027	−0.098	0.310
	(0.323)	(0.153)	(0.158)	(0.371)
Husband attended college	0.034	0.397	0.243	0.371
	(0.329)	(0.168)**	(0.164)	(0.398)
Husband college graduate	0.413	0.508	0.187	0.403
	(0.336)	(0.187)***	(0.165)	(0.395)
Wife high school graduate	0.249	0.189	0.194	−0.119
	(0.219)	(0.176)	(0.140)	(0.283)
Wife attended college	0.262	0.259	0.484	−0.136
	(0.233)	(0.187)	(0.144)***	(0.287)
Wife college graduate	0.654	0.332	0.617	0.101
	(0.245)***	(0.202)	(0.149)***	(0.299)
Hispanic	1.071	0.248	−0.349	1.231
	(0.620)*	(0.370)	(0.369)	(0.821)
Black	0.104	0.139	0.058	0.612
	(0.309)	(0.224)	(0.220)	(0.309)**
Churchgoer	0.734	0.449	0.660	0.924
	(0.143)***	(0.164)***	(0.079)***	(0.170)***
Family size	0.185	0.112	0.115	0.050
	(0.069)***	(0.048)**	(0.034)***	(0.081)
Constant	1.529	−1.072	2.446	−1.223
	(1.376)	(1.040)	(0.680)***	(1.618)
R^2	0.345	0.260	0.232	0.338
Number of observations	308	599	1,166	207

Note: Standard errors are in parentheses.
*** estimate is significant at a 1 percent level.
** estimate is significant at a 5 percent level.
* estimate is significant at a 10 percent level.

Table 3
Tests of Equality of the Contributions of Different Decisionmakers for Different Areas of Charitable Activity

	Null hypothesis: Predicted log (Contribution) are the same						
	Husband vs. Wife	Husband vs. Joint	Husband vs. Separate	Wife vs. Joint	Wife vs. Separate	Joint vs. Separate	
All Charities	21.25***	36.21***	13.31***	242.32***	73.40***	1.01	23.32***
Religious organizations	6.39**	14.58***	16.48***	1.66	126.34***	2.85*	
Combined purpose	43.93***	41.03***	31.09***	243.43***	93.68***	0.97	
Need based	35.98***	2.43	5.79**	70.44***	59.59***	15.79***	
Health	38.70***	0.01	0.00	92.01***	9.72***	0.00	
Education	50.76***	1.76	0.05	46.62***	16.43***	1.01	
Youth development	0.08	7.23***	2.00	262.55***	56.86***	0.21	
Art	5.13**	58.09***	0.65	163.55***	1.42	28.31***	
Neighborhood	6.17**	0.43	2.84*	10.77***	1.28	4.78**	
Environment	4.81**	13.69***	3.20*	7.52***	0.01	1.34	
International organizations	31.22***	0.12	13.94***	47.85***	7.71***	35.90***	
Other		13.34***	9.42***	15.06***	0.02	1.90	

Note: Standard errors are in parentheses.
*** estimate is significant at a 1 percent level.
** estimate is significant at a 5 percent level.
* estimate is significant at a 10 percent level.

where s_c is the share of charitable category c, which is calculated as the amount of money that the household gives to the charitable category divided by the total amount of charitable contribution made by the household. Notice that this index equals one if the household donates money to only one charitable category and reaches its lower bound when the household donates money evenly to all 11 charitable categories. The average value of Herfindahl index for husband-deciding households is 0.72, for wife-deciding households 0.68, for joint-deciders 0.70, and for separate-deciders 0.58. This result is similar in pattern to ABR. Running simple tests of equality of means for each pair of decisionmaking modes, I find that husband-deciding households concentrate their giving significantly more than wife-deciding and separately deciding households. However, in contrast to ABR's finding, the concentration of joint-deciders is not significantly different from either husband-deciders or wife-deciders.

In the SGV data, ABR show that husband-deciding couples tend to give more than wife-deciding couples when the tax price of giving is low and as the price of giving increases, this difference vanishes. In Figure 1, I plot the response of the charitable contributions to changes in the tax price of giving for a median household.[9] The results are in line with ABR. Wife-deciding couples are the least responsive group to a change in the tax price. Although husband-deciders tend to donate more than wife-deciders at relatively lower prices, they are also the most responsive group to changes in the tax price. When the tax price of giving equals one, wife-deciders tend to give more than husband-deciders.[10]

## V. Household Bargaining over Charitable Gifts

I have shown that married couples differ in their giving depending on the decisionmaking authority in the household. In this section, I focus mainly on joint decision-makers. ABR show that for these households, bargaining over charitable gifts may either be costly or beneficial depending on the preferences of wife and husband. For example, consider a couple with opposing tastes in charities. Bargaining may decrease total household giving if donations favored by one spouse create a negative externality for the other. In contrast, if the couple has identical preferences over charitable gifts, then this may positively affect household giving because of the decrease in costs associated with identifying potential charities to give to.

Following ABR, I first investigate the amount given to charity by joint-deciders as a linear combination of the amount that the husband would choose, were he the

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9. In order to control for the possible endogeneity of the tax price, I run two robustness checks. First, I exclude the tax price of giving from the giving equations and check whether the major results are sensitive to this alternative specification. Second, I instrument the last dollar price with the "first dollar price," which is the marginal tax rate that applies to the first dollar donated to charity, and re-estimate the giving equations. The main results of the paper are robust to these alternative specifications and available from the author upon request.

10. Following ABR, I also conduct a similar analysis for religious giving. Results are similar and available upon request.
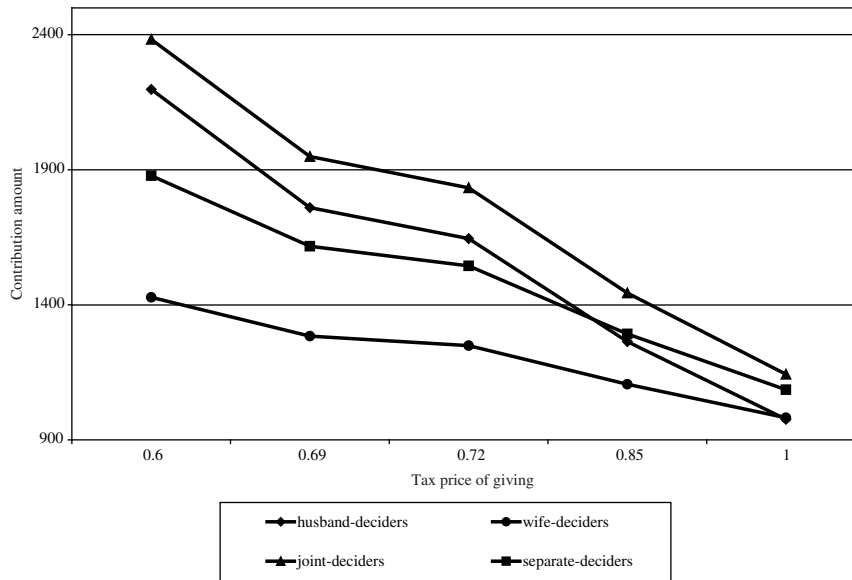
Figure 1
Total Contributions by Married Couples

decisionmaking authority, and the amount the wife would choose, were she in charge. The predicted donation made by the jointly deciding couples can be expressed as

$$(2) \quad \hat{Y}_j = \hat{Y}_h' \theta_h + \hat{Y}_w' \theta_w + \varepsilon$$

where $\hat{Y}_h$ and $\hat{Y}_w$ denote the amount of predicted gifts that would have been donated by the husband and wife, if either had sole control over the allocation, $\hat{Y}_j$ is the amount of predicted gifts donated by the joint-deciders, and ε is the associated error term.[11] The coefficients θ_h and θ_w show whether bargaining over charitable gifts is costly, beneficial, or has no effect. If $\theta_h + \theta_w = 1$, then bargaining over household gifts neither creates an additional donation nor destroys the sum of the total gifts that the husband and wife would donate, if each were the sole decisionmaker. If $\theta_h + \theta_w > 1$, then household bargaining over charitable gifts creates extra giving. Finally, if $\theta_h + \theta_w < 1$, then bargaining is costly and decreases the total amount of giving that would have been made by the household. In Equation 2, the estimates

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11. The predicted gifts that would have been donated by the husband or wife, if either one had the sole discretion over the allocation is calculated by using the personal characteristics of husbands and wives, including own age, own education, household income, family size, and the price of giving as independent variables, but excluding spouse's age and education. This excluded information is used when calculating the predicted gifts donated by the joint-deciders.

for θ_h and θ_w are 0.499 and 0.567 with standard error 0.011. Since $\theta_h + \theta_w = 1.066$ with standard error 0.005, bargaining significantly increases household giving by around 7 percent. The coefficient estimates also suggest that in jointly deciding households, wives have significantly more bargaining power than husbands, the opposite of ABR's result. They estimate that bargaining reduces giving by 6 percent and husbands have more bargaining power than wives in jointly deciding couples. I also find that bargaining increases household giving even for couples who allocate money to different types of charities. Husbands' preferences prevail when joint-deciders donate to health, education, art, neighborhood, international, and environmental organizations.[12]

These results could be subject to a selection problem. To control for systematic differences in the characteristics of households that choose different decisionmaking regimes, ABR perform a standard Oaxaca decomposition of differences in mean levels of giving across different types of married couples. Here, I replicate their decomposition analysis using the COPPS data.[13] The differences in mean levels of giving across different types of couples can be decomposed as

$$(3) \quad \bar{Y}_g - \bar{Y}_j = [(\bar{X}_g - \bar{X}_j)' \hat{\beta}_g] + [\bar{X}_j'(\hat{\beta}_g - \hat{\beta}_j)] \text{ for } g = h, w, s$$

where $\bar{Y}_g$ is the mean level of giving by the husband-deciders, wife-deciders, or separate-deciders, $\bar{Y}_j$ is the mean level of giving by the joint-deciders, $\bar{X}$ is the vector of mean values of observable characteristics, and $\hat{\beta}$ is the vector of regression coefficients. In Equation 3, the first term in brackets represents the difference in mean giving across different types of couples due to observable characteristics (due to differences in means of independent variables). The second term in brackets is the "unexplained" part, which captures the differences in mean giving due to differential propensities to give.

Looking at the differences between joint-deciders and husband-deciders, I decompose a giving shortfall of 5 percent by husband-deciding couples relative to mean giving by jointly deciding couples. The decomposition reveals that almost all of this difference is due to differential propensities to give. Similarly, I decompose the observed 9 percent shortfall in mean giving by wife-deciding households relative to joint-deciding households into a predicted 4 percent shortfall due to the differences in mean characteristics and a 5 percent shortfall if these households had the mean characteristics of the jointly deciding households. Hence, in contrast to ABR's results, Oaxaca decomposition suggests that joint decisionmaking is associated with higher contributions than sole decisionmaking by either husband or wife.

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12. In estimating couples' giving equations, following ABR, I included independent variables controlling only for respondents' race and religious attendance. In contrast to the SGV, the COPPS contains information on both husbands' and wives' race and religious attendance regardless of who was the actual respondent. Including this extra information to giving equations, I find that bargaining increases giving by an estimated 8 percent and joint-deciders behave significantly differently from both husband-deciders and wife-deciders.

13. When I use propensity score matching methods to match the joint-deciders that are similar in observable characteristics to other couples, and re-estimate Equation 2 using the matched data, I find similar results.

VI. Selection of the Decisionmaker

The results above show the importance of the selection of the decisionmaker. But what factors determine who decides in the household? In Table 4, I report the results of a multinomial logistic model of the selection of the decider. Following ABR, the independent variables are whether the husband is the primary earner, relative age (husband's age minus wife's age), relative education (husband's education minus wife's education), average age and education in the household, family size, race dummies for the respondent, and whether the respondent regularly attends religious services. The base case is that the wife decides, hence Table 4 presents the effect of each observable characteristic on the probability that the husband decides or the decision is made jointly.[14]

The results in Table 4 are similar to the corresponding results of ABR. If the husband is the primary earner, then he is much more likely to decide on how to allocate money to charities. However, the effect of husband being the primary earner on the probability that couple decides jointly is insignificant. Moreover, age variables do not significantly affect the selection of the decisionmaker, but education variables do. An additional finding is that couples are less likely to decide jointly in black households.

VII. Conclusion

In this paper, I investigate the effect of gender differences and household bargaining on charitable giving using newly available COPPS data. Some of my findings contrast with those of ABR, who used the SGV data. Focusing on single households, I find significant differences in contribution behavior between men and women, with women more likely to donate to different areas of charitable activity. Gender differences in giving to different charity categories also carry over to married couples. As in ABR, I find that husband-deciding couples concentrate their giving to few areas of charitable activities, while wife-deciders tend to spread their giving over more areas. Wife-deciders are also far less sensitive to changes in the tax price of giving compared with other types of couples.

Given the importance of the decisionmaker in allocating money to charities, I investigate the factors associated with the selection of the decisionmaker in the household. Like ABR, I find that if the husband is the primary earner, then he is much more likely to decide on how to allocate money to charities. However, the effect of the husband being the primary earner on the probability that the couple decides jointly is insignificant.

In contrast to ABR, I find that bargaining increases household giving. This effect is also robust to inclusion or exclusion of various explanatory variables and to adjustment for endogeneity of the tax price of giving. I find that on average, bargaining increases household giving by 7 percent. Although wives prevail in household bar-

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14. In this analysis, I exclude separate-deciders so that my results are comparable to the corresponding results of ABR.

Table 4

*Selection of Decisionmaking Authority for Allocating Money to Charities:
Multinomial Logit Model*

	Probability that the husband is the giver	Probability that the couple decides jointly
Husband is the primary earner	0.426	0.085
	(0.166)***	(0.114)
Husband's age - wife's age	0.018	0.001
	(0.017)	(0.012)
Husband's education - wife's education	0.159	0.094
	(0.037)***	(0.025)***
Average age	0.000	−0.003
	(0.006)	(0.004)
Average education	0.094	0.130
	(0.041)**	(0.028)***
Hispanic	−0.558	−0.675
	(0.696)	(0.471)
Black	−0.073	−0.578
	(0.362)	(0.281)**
Family size	−0.010	−0.009
	(0.072)	(0.050)
Churchgoer	2.065	1.627
	(0.186)***	(0.153)***
Constant	−2.822	−1.319
	(0.744)	(0.514)***
Predicted probability if husband is the primary earner	0.154	0.513
Predicted probability if wife is the primary earner	0.112	0.511
Pseudo R^2	0.082	
Number of observations	1,979	
Log-likelihood	−1,760.020	

Note: Predicted probabilities are calculated at the mean of the variables. Standard errors are in parentheses.
*** estimate is significant at a 1 percent level.
** estimate is significant at a 5 percent level.

gaining over aggregate giving, husbands are dominant in bargaining over giving when the household donates to health, education, art, neighborhood, environment, or international organizations. My results not only highlight the positive effect of household bargaining over charitable gifts but also provide new evidence for the effects of assortative mating and other demographic characteristics on charitable giving.

Appendix 1

Table A1
Definition of Key Variables

Variable	Definition
Gives to charity	Binary giving variable. 1 if the respondent donated any amount to a charitable organization during the survey year.
Total amount of contributions	Total amount of money that the respondent has reported giving to charity during the survey year.
Price	Equals 1 minus the marginal tax rate, defined as a sum of the federal and state income tax rates for those who itemize deductions and 1 for who do not. Tax rates are calculated from information on income, itemization status, probable filing status, and the number of household members.
Income	Gross household income as reported in the data.
Age of male and female	Age of the respondent or spouse.
Education dummies for male and female	Binary variables for the highest level of education obtained. The omitted category is those who did not complete high school.
Black, Hispanic	Binary variables for the race of the respondent or spouse.
Family size	Total number of people living in the household including the respondent.
Churchgoer	Binary variable, equals 1 if the respondent or spouse has reported that he or she personally attends religious services at least once a month. The data report the total number of days that the respondent has attended religious services during a year. Regular attendance is coded as 1 if this number is greater than or equal to 12.
Primary earner is male	Binary variable, equals 1 if the male is the chief wage earner. The wage rate for the respondent and the spouse is reported in the data.

Table A2
Summary Statistics

	Singles		Couples by Decisionmaking Authority			
	Male	Female	Husband	Wife	Joint	Separate
Price	0.907	0.920	0.823	0.816	0.798	0.798
	(0.125)	(0.111)	(0.152)	(0.146)	(0.143)	(0.151)
Income	42,732	32,144	90,783	87,220	89,453	100,046
	(42,144)	(28,867)	(68,326)	(114,286)	(93,125)	(67,925)
Age of male	41.57	—	48.312	47.628	47.739	51.126
	(16.61)		(14.191)	(15.127)	(14.337)	(13.421)
Age of female	—	49.05	45.710	45.415	45.481	49.174
		(19.81)	(13.761)	(14.172)	(14.078)	(12.627)
Male high school graduate	0.345	—	0.286	0.363	0.272	0.266
	(0.476)		(0.453)	(0.481)	(0.445)	(0.443)
Male attended college	0.262	—	0.257	0.238	0.248	0.198
	(0.440)		(0.438)	(0.426)	(0.432)	(0.400)
Male college graduate	0.248	—	0.392	0.240	0.405	0.469
	(0.432)		(0.489)	(0.427)	(0.491)	(0.500)
Female high school graduate	—	0.367	0.347	0.367	0.310	0.246
		(0.482)	(0.477)	(0.482)	(0.463)	(0.432)
Female attended college	—	0.256	0.235	0.257	0.279	0.256
		(0.437)	(0.425)	(0.437)	(0.449)	(0.438)
Female college graduate	—	0.187	0.254	0.272	0.314	0.382
		(0.390)	(0.436)	(0.445)	(0.465)	(0.487)

Male Hispanic	0.010	—	0.016	0.027	0.014	0.005
	(0.099)		(0.126)	(0.161)	(0.116)	(0.070)
Male Black	0.098	—	0.055	0.048	0.037	0.072
	(0.298)		(0.228)	(0.215)	(0.188)	(0.260)
Female Hispanic	—	0.011	0.013	0.018	0.009	0.014
		(0.104)	(0.113)	(0.134)	(0.097)	(0.120)
Female Black	—	0.163	0.051	0.048	0.033	0.072
		(0.370)	(0.221)	(0.215)	(0.178)	(0.260)
Male churchgoer	0.188	—	0.357	0.214	0.446	0.256
	(0.391)		(0.480)	(0.410)	(0.497)	(0.438)
Female churchgoer	—	0.298	0.370	0.345	0.476	0.324
		(0.457)	(0.484)	(0.476)	(0.500)	(0.469)
Primary earner is male	—	—	0.656	0.532	0.580	0.546
			(0.476)	(0.499)	(0.494)	(0.499)
Family size	1.351	1.789	3.096	3.117	3.099	2.855
	(0.774)	(1.144)	(1.135)	(1.148)	(1.180)	(1.060)
Number of observations	701	1,092	311	600	1,167	207

Note: Standard deviations are reported in parentheses.

Table A3
Probability of Giving and the Amount of Contributions to Specific Charities

| | Probability of Giving | | | | Contribution Amount | | | | |
| | Singles | | Singles | | Couples by Decision Making Authority | | | | |
	Males	Females	Males	Females	Husband	Wife	Joint	Separate
All charities	0.534	0.562	602.30	618.17	1,959.62	1,523.31	2,774.42	2,596.28
	(0.499)	(0.496)	(1,493.71)	(1,620.52)	(2,795.01)	(3,192.37)	(4,961.51)	(5,182.19)
Religious organizations	0.285	0.375	287.72	346.63	1,267.21	842.71	1,955.36	1,337.73
	(0.452)	(0.484)	(842.84)	(965.88)	(2,259.05)	(1,829.76)	(4,537.75)	(3,347.12)
Combined purpose	0.210	0.198	89.43	80.02	232.47	154.57	244.78	390.80
	(0.407)	(0.399)	(519.50)	(946.04)	(911.77)	(436.42)	(731.49)	(1,515.73)
Need based	0.185	0.260	81.20	74.21	147.29	168.11	227.52	310.49
	(0.389)	(0.439)	(485.30)	(361.09)	(416.51)	(427.37)	(919.58)	(941.85)
Health	0.134	0.179	33.51	44.66	53.92	56.99	74.39	203.61
	(0.341)	(0.384)	(189.19)	(385.75)	(191.86)	(164.27)	(355.17)	(927.67)
Education	0.090	0.104	25.99	22.77	90.44	149.33	112.50	135.51
	(0.286)	(0.306)	(141.82)	(220.18)	(554.55)	(1378.187)	(636.97)	(488.74)

Youth development	0.070	0.082	7.62	13.04	27.91	32.23	41.46	50.39
	(0.255)	(0.275)	(41.86)	(137.40)	(145.93)	(150.32)	(211.21)	(163.18)
Art	0.053	0.054	11.95	5.37	23.40	30.37	25.04	39.57
	(0.224)	(0.226)	(79.70)	(32.39)	(166.29)	(235.89)	(177.85)	(123.55)
Neighborhood	0.045	0.040	4.91	3.45	10.00	12.22	11.06	20.70
	(0.203)	(0.197)	(32.33)	(25.49)	(47.63)	(73.82)	(76.60)	(95.99)
Environment	0.046	0.071	9.205	11.76	19.33	18.18	16.89	63.58
	(0.209)	(0.258)	(99.20)	(165.29)	(87.53)	(77.00)	(112.69)	(213.44)
International organizations	0.026	0.047	17.68	4.97	29.24	12.14	11.87	10.07
	(0.158)	(0.211)	(379.86)	(38.77)	(345.83)	(80.22)	(74.73)	(50.00)
Other	0.060	0.060	33.08	11.30	58.41	46.46	53.52	33.83
	(0.237)	(0.237)	(304.47)	(124.67)	(475.08)	(324.76)	(390.22)	(175.47)
Number of observations	701	1,092	701	1,092	311	600	1,167	207

Note: Standard deviations are reported in parentheses.

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