Charitable Giving by Married Couples

Who Decides and Why Does it Matter?

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ABSTRACT

We examine how charitable giving is influenced by who in the household is primarily responsible for giving decisions. Looking first at single-person households, we find men and women to have significantly different tastes for giving, setting up a potential conflict for married couples. We find that, with respect to total giving, married households tend to resolve these conflicts largely in favor of the husband's preferences. Bargaining over charitable giving, rather than letting one spouse take charge, is estimated to reduce giving by at least 6 percent. When the woman is the decisionmaker, she will still make a significantly different allocation of those charity dollars, preferring to give to more charities but to give less to each. Our results give new insights into both the demographics of charitable giving and the costliness of household bargaining.

I. Introduction

Married couples make joint earning and spending decisions, they allocate goods and tasks within the home, they settle disagreements, and produce household public goods. It is important for economists to ask how these decisions are made, and how economic variables affect the household dynamics. However, the literature on intra-household decisionmaking has been constrained by the diffi-

culty of identifying, within consumption surveys, household consumption items that are clearly private goods for only one spouse, or clearly public goods for the household. From those studies that have identified husband's goods (husband's leisure, men's clothing), wife's goods (wife's leisure, women's clothing) and public goods (children's clothing, children's nutrition), one consensus has emerged—households are typically not governed by a sole benevolent head, as hypothesized by Becker (1981), but are better characterized by bargaining between spouses with different tastes and talents.[1] Still, much more remains to be learned about how households make decisions and how compromises are formed.

One good that is usually a public good in the household is the family's charitable giving. The average household gives between 1 and 2 percent of income to charity annually. Economists have long been concerned about how sensitive giving is to income and to the tax deduction for charity, and how these variables may affect the total amount of charity and the distribution of dollars across types of charities. However, research has not taken into account the view that bargaining may characterize household decisions. In addition, there is growing evidence that men's and women's tastes for giving could be quite different. For instance, Eller (1997) reports that women and men differ dramatically in their estate giving, while experimental research finds significant difference in how men's and women's giving responds to price and income.[2] If indeed men and women have different views on philanthropy, how are these conflicts resolved within a household?

This paper explores a unique survey designed to learn about charitable giving, but which contains a question about who in the household is the primary decisionmaker on charity. We draw on theories of intra-household resource allocation to frame an empirical investigation of the role of intra-household bargaining on the household's charitable giving. In the next section we discuss a theoretical framework for approaching the problem. In Section III we describe our data. In Section IV we present evidence that single men and women do indeed have significantly different tastes for giving. Section V turns to couples and estimates the impact of bargaining on the level of charitable donations. We find evidence that bargaining does indeed reduce giving, and that bargaining agreements predominantly favor husbands. Section VI explores the endogeneity of who decides on charitable giving. As expected, we find that relative education and income are the primary determinants of control over charitable resources. Conclusions are in Section VII.

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1. For prominent examples theoretical models of household bargaining, see Manser and Brown (1980), McElroy and Homey (1981), Chiaporri (1988, 1992) and Lundberg and Pollak (1993). For empirical comparisons on the ''unitary'' household model of Becker (1981) and the bargaining models, see, for instance, Schultz (1990), Thomas (1990), Hoddinott and Haddad,(1995), Haddad and Hoddinott (1994), Lundberg, Pollak, and Wales (1997), and Browning and Chiaporri (1998). Lundberg and Pollak (1996) provide an excellent synthesis of this literature, and Alderman et al. (1995) makes a case to favor a bargaining approach.
2. Eller (1997) reports 37.6 percent of bequests to charity by men went to private foundations, while only 18.7 of that of women did. Women gave 14.3 percent of their estates to religious organizations, in contrast to 5.4 percent by men. Educational, medical, and scientific organizations drew 34.5 percent of women's charitable bequests but only 21.5 percent of men's. The differences overall level of philanthropy were much smaller: Male donors contributed 26.7 percent of their net worth, compared to 27.6 for women. In a controlled experiment, Andreoni and Vesterlund (2001) found that men are significantly more price elastic than women, and that women are more ''equalitarian.''

II. How Does Bargaining Within Marriage Affect Charitable Giving?

Marriage allows two adults to share in several marriage-specific public goods, including charitable giving. Marriage may also require that persons with distinct preferences devote resources to negotiating expenditure patterns, and this too extends to charitable donations. In this section, we present a simple model to illustrate the effects of conflict in preferences between members of a couple on their charitable giving, and discuss how bargaining costs may discourage donations when tastes differ across partners.

To see how giving within marriage depends on the alignment of preferences, consider the case of two nearly identical persons with two charitable options. Except for their preferences over the two charities, these persons are identical. In particular, this husband and wife have the same income and bargaining power, but have utility functions

$$U_i = U(c_i, g, \theta_i(d_1, d_2)), \, i = h, w.$$

Each person receives utility from his/her own consumption of private goods c_i, from a marriage-specific public good g, and from donations to two causes d_1 and d_2. As single persons we assume they have identical levels of utility, and we assume that in marriage they will costlessly agree to an expenditure pattern that is Pareto efficient and yields equal utility for each partner.

Consider as a benchmark the case in which each person cares about only one of the two options, so that $\theta_h(d_1, d_2) = d_1$ and $\theta_w(d_1, d_2) = d_2$. In this case donations are private goods within the marriage. Because the two persons now share the cost of the public good g, the household economies free up resources for other expenditures. If the donations are normal goods, then marriage will lead each person to donate more than he or she would as a single person.

Next consider a couple whose preferences are identical rather than orthogonal. Suppose that each cares only about d_1 so that $\theta_h(d_1, d_2) = \theta_w(d_1, d_2) = d_1$. Each dollar donated now brings satisfaction to both partners, making donations a public good in the household. However, if single individuals each would have given d_i^*, as a couple their donations may actually be more or less than $2d_i^*$. If there are no household economies in providing g, and assuming private consumption is a normal good, it follows from Samuelson efficiency conditions that giving by the couple will be above d_i^* but below $2d_i^*$. If the economies gained by forming the new household are significant, however, then this ''income effect'' will push giving up, perhaps even above $2d_i^*$. Still, compared to the orthogonal case in the prior paragraph, this household will spend less in total on giving. The reason, obviously, is that donations are now jointly consumed.

Finally, consider a couple with opposing tastes in charities. In particular, suppose $\theta_h(d_1, d_2) = d_1 - d_2$ and $\theta_w(d_1, d_2) = d_2 - d_1$. For example, one spouse might support the Republican Party and dislike Democrats, while the other displays the opposite loyalties. In the case of opposing tastes, donations favoring one spouse create negative externalities experienced by the other, and the negative externality reduces donations (to zero, in this extreme case) when the couple marries.

Married individuals, of course, typically choose each other, and evidence suggests mating is assortative across measurable characteristics such as education (see, for example, Pencavel 1998). It is thus likely that partners in marriage have greater similarity in tastes for giving then any couple formed at random. But unless tastes are identical, a couple may bargain over the dispensation of charitable dollars, and this bargaining can be costly. The cost can be inframarginal (deciding whether, or not to give) or marginal (deciding how much to give), and costs at the margin may be increasing (you have to argue harder for the last few dollars given). Both types of costs should work to further diminish a household's contribution to charity.

In addition, some couples don't get along well enough to reach a bargaining solution in the first place. These may be in the ''separate-spheres'' outcome described by Lundberg and Pollak (1993). In this case, couples choose not to divorce and sacrifice the household economies of scale, but the allocations within the marriage are characterized by a noncooperative Nash equilibrium in which both partners make giving decisions, each independently. Whether the Nash-bargained level of giving is higher or lower than giving by the couple that bargains efficiently will depend on the alignment of tastes across charities. In particular, the noncooperative equilibrium will supply less of marriage-specific public goods (including donations to charities both spouses enjoy) and more of the private goods (including donations to charities only one spouse enjoys).

One way to test the effect of bargaining costs on giving is to look at choices of households in which one spouse cedes charitable decisionmaking authority to the other. Even if prior bargaining determined who would be the decisionmaker, single-person decisionmaking suggests that there is not much bargaining going on at the margin that would drive up the price of donations. Among couples who make decisions jointly, giving may be restrained at the margin by the costliness of reaching agreement.

The interest in this question, of course, rests on husbands and wives differing in their tastes for giving. Accordingly, we begin by exploring the giving patterns for single men and single women to see if they differ significantly by gender. Before turning to these results, we describe our data set.

III. The Data

We use household surveys conducted in 1992 and 1994 by the Gallup Organization, and commissioned by Independent Sector, which were designed to measure giving and volunteering behaviors. These two independent cross-sections were randomly drawn from the United States, and surveys were conducted in person with one adult member of the household. Both surveys include a question on who within the household allocates money to charities; the question is worded, ''Who in your household is considered most involved in deciding which charities your household will give to?'' The responses to this question are central to our analysis.[3]

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3. Note that we rely on self-reporting here. It is possible that cultural or other factors affect how a respondent reports who it is who controls decisionmaking within the household. The results reported in this paper make it clear that couples reporting differing allocations of decisionmaking authority do indeed behave

Pooling the 1992 and 1994 data gives a sample of 4,180 households.[4] Eliminating observations missing key variables leaves us with a sample of 3,572, including 2,560 who are married.[5] Among married couples, 53 percent report that decisions about charitable giving are made jointly, 19 percent say the husband is most involved in deciding, and 28 percent respond that the wife is the primary decisionmaker. Table A1 in the appendix provides detailed definitions of key variables, while other tables and summary statistics are available from the authors.

Because of the charitable deduction for households that itemize deductions on the personal income tax, it will often cost a household less than a dollar for each dollar given away. For example, a household in the 31 percent marginal tax bracket that itemizes faces a tax price of 69 cents for each dollar donated. For a household that does not itemize, however, the price remains one.[6] Since our survey does not report marginal tax rates, we calculate the tax price of giving for each household using information on itemization status, number of household members, gross income, probable filing status, and the tax schedules for the relevant year. Our final sample includes 3,045 households with the information needed for this calculation.[7]

IV. Single Men and Single Women: What Are the Gender Differences?

We first look for gender differences in the decision to give. The first two columns of Table 1 contain the results of the probit estimation of the probability of making a charitable donation for each sex. As expected, the price variable has a negative effect for both single men and single women. The coefficient on the income variable is positive for both, but is statistically significant only for single men. The dummy variables for education have significant positive effects for both. Comparing these two equations, we find that the behavior of males and females is, in fact, significantly different. The hypothesis that they behave identically can be rejected at the 0.10 level of significance ($\chi^2(12) = 19.69$, p-value $= 0.073$).

Turn next to the levels of contributions. In our analysis, as in much of the literature,

differently on average, and that these differences are consistent with bargaining in which control is allocated as reported. However, there may be cultural factors at work that one should keep in mind in interpreting, for example, significant coefficients on ethnicity as reported in Table 4.

4. Independent Sector also collected data for 1988, 1990, 1996, 1999, and 2001. We do not use the 1990 data because it is missing information on spouse's human capital variables. We do not use the 1996 data because the question of who is most involved in charity decisions is only asked to those who contribute to charity. The 1988, 1999, and 2001 data are, respectively, no longer and not yet available at the time of this study.

5. In total, we eliminate 503 observations where the respondent is neither the primary earner nor the spouse of the primary earner, 51 observations where the charity decision is not, made by the respondent or the respondent's spouse or jointly by the respondent and the spouse, 40 observations missing the respondent's or respondent's spouse's age and 14 observations missing family size.

6. The deductibility of gifts from state tax returns introduces additional variability to the price of gifts. Unfortunately, we do not know the residency of the households in the sample, so we cannot include state taxes in the price.

7. For the analysis of how much households give to charity in Sections IV and V we have excluded the observations with missing income data. However, we do use these observations when analyzing who is in charge of the charity decision in Section VI.

Table 1
Probability of Giving and Total Contributions to Charity

	Probability of Giving (Probit)		Total Contributions (Tobit)	
	Single Males	Single Females	Single Males	Single Females
Ln(Price)	−1.112	−0.868	−3.135	−2.496
	(0.71)	(0.73)	(1.86)	(1.90)
Ln(Income)	0.271*	0.171	1.108*	0.916*
	(0.11)	(0.10)	(0.33)	(0.29)
Age of male	0.009	—	0.032*	—
	(0.00)	—	(0.01)	—
Age of female	—	0.003	—	0.021
	—	(0.00)	—	(0.01)
Male high school graduate	0.502*	—	1.769*	—
	(0.22)	—	(0.66)	—
Male attended college	0.997*	—	3.404*	—
	(0.22)	—	(0.65)	—
Male college graduate	0.732*	—	2.576*	—
	(0.23)	—	(0.69)	—
Female high school graduate	—	0.409*	—	1.619*
	—	(0.16)	—	(0.50)
Female attended college	—	0.453*	—	1.888*
	—	(0.19)	—	(0.57)
Female college graduate	—	0.840*	—	2.905*
	—	(0.23)	—	(0.64)
Hispanic	−0.411	−0.006	−1.225	0.26
	(0.24)	(0.21)	(0.71)	(0.61)
Black	−0.146	0.166	−0.488	0.467
	(0.22)	(0.16)	(0.64)	(0.47)
Family size	−0.034	−0.016	−0.144	−0.0813
	(0.06)	(0.05)	(0.16)	(0.14)
Churchgoer	0.569*	0.415*	2.080*	1.696*
	(0.16)	(0.13)	(0.44)	(0.36)
Year=1992	0.308*	−0.309*	0.895	−0.837*
	(0.15)	(0.13)	(0.43)	(0.36)
Constant	−3.683*	−1.947*	−13.39*	−9.580*
	(1.12)	(0.94)	(3.30)	(2.77)
Standard error	—	—	3.597*	3.613*
	—	—	(0.19)	(0.16)
Number of observations	368	500	368	500
Number of observations censored	—	—	147	182
Log-likelihood	−204.65	−291.95	−709.79	−1,015.74

* estimate is significant at a 5 percent level. (Standard errors are in parentheses)

the dependent variable is the logarithm of the dollar amount of contributions.[8] Because 31 percent of our sample reported no contributions, we estimate the giving functions with a tobit specification (censored at zero). The results of the estimation are presented in the third and fourth columns of Table 1. As expected, the tax price has a negative effect in both equations, and the effect is significant for single males. Income has a positive and significant effect in both equations. As is common in the literature on charitable giving, age and education variables tend to have positive and significant coefficients. As with the probability equations, the hypothesis that the equations for amount given are the same for single men and single women is rejected, here at a 0.05 level of confidence ($\chi^2(12) = 21.30$, p-value $= 0.046$). Hence, we can confidently say that, overall, single men and women display different tendencies toward giving.

V. Married Couples: What Differences Remain?

The possibility of assortative mating suggests that differences found between single people will exaggerate the expected differences between married individuals. If preferences for charity constitute a main criterion in spousal selection, or are correlated with the main criteria, then we may see no significant differences between male and females in married couples.

We address this possibility by classifying couples according to the three assignments of decisionmaking authority of charitable donations: The husband decides, the wife decides, and they make decisions jointly. Note that couples can differ in three ways: Whether they give, how much they give, and to what types of organizations they give. We will explore gender differences within the marriage for all three dimensions of giving.

Table 3 reports the probit equations estimating the likelihood of making a gift. We estimate separate equations for each type of couple: Husband-decides, wife-decides, and joint-deciders. As expected, the tax price has a negative effect and income a positive effect in all three equations, although income is significant only for joint deciders. Looking at the effect of education, a noteworthy pattern appears. In the husband-decides equation, the husband's educational variables are positive and significant, as expected, but the educational variables for the wife are insignificant. Likewise, in the wife-decides equation the wife's educational variables are positive and (mostly) significant, while the husband's are not. For joint-deciders, however, only the educational variables for the husband are positive and significant. These results strongly suggest of a model of bargaining, rather than unitary and altruistic decisionmaking.

The tobit estimates of the amount-given equations, shown in the last three columns of Table 2, show a similar pattern. Again, the tax price effects are negative, and the effect of income is positive and significant in all three equations. And as we saw in the likelihood-of-giving equations, only the decisionmaker's own educational attainment is significant in the regressions, and when couples decide jointly only the husband's education is significant.

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8. Recent reviews of this literature include Brown (1997) and Clotfelter (1997).

Table 2

Charitable Giving Functions for Married Couple, by Who Decides

	Probability of Giving (Probit)			Total Contributions (Tobit)		
	Husbands	Wives	Joint	Husbands	Wives	Joint
Ln(Price)	−0.971	−0.749	−0.445	−3.455	−2.177	−1.832
	(0.81)	(0.64)	(0.43)	(1.76)	(1.20)	(0.99)
Ln(Income)	0.1726	0.203	0.211*	0.793*	0.810*	0.861*
	(0.15)	(0.12)	(0.09)	(0.37)	(0.25)	(0.22)
Age of male	0.012	0.017	0.001	0.050	0.046	0.007
	(0.01)	(0.01)	(0.01)	(0.03)	(0.02)	(0.02)
Age of Female	−0.007	−0.012	0.012	−0.023	−0.022	0.040
	(0.01)	(0.01)	(0.01)	(0.03)	(0.03)	(0.02)
Male high school graduate	0.766*	0.074	0.091	2.140*	0.309	0.563
	(0.23)	(0.19)	(0.14)	(0.60)	(0.40)	(0.36)
Male attended college	1.033*	0.149	0.431*	3.133*	0.649	1.491*
	(0.26)	(0.21)	(0.16)	(0.64)	(0.43)	(0.39)
Male college graduate	0.719*	0.016	0.391*	2.671*	0.335	1.537*
	(0.30)	(0.25)	(0.17)	(0.71)	(0.48)	(0.42)
Female high school graduate	−0.205	0.326	0.137	−0.477	0.857*	0.329
	(0.22)	(0.19)	(0.14)	(0.54)	(0.43)	(0.38)

Female Attended college	-0.114	1.115*	0.135	-0.170	2.263*	0.403
	(0.27)	(0.23)	(0.17)	(0.64)	(0.46)	(0.42)
Female college graduate	0.188	0.790*	0.322	0.171	2.160*	0.890
	(0.32)	(0.26)	(0.19)	(0.71)	(0.53)	(0.46)
Hispanic	-0.194	-0.157	-0.263	-0.469	-0.518	-0.789*
	(0.21)	(0.19)	(0.15)	(0.52)	(0.39)	(0.38)
Black	-0.387	-0.198	-0.243	-0.849	-0.786	-0.822
	(0.25)	(0.21)	(0.17)	(0.61)	(0.43)	(0.42)
Family size	0.032	0.007	0.049	0.097	0.040	0.155
	(0.06)	(0.05)	(0.04)	(0.14)	(0.10)	(0.09)
Churchgoer	0.756*	0.547*	0.516*	2.484*	1.776*	2.066*
	(0.15)	(0.13)	(0.09)	(0.35)	(0.25)	(0.22)
Year=1992	0.167	0.054	-0.026	0.522	0.517*	0.230
	(0.15)	(0.13)	(0.09)	(0.36)	(0.25)	(0.22)
Constant	-2.640	-2.570*	-2.970*	-10.047*	-8.792*	-10.707*
	(1.54)	(1.21)	(0.89)	(3.80)	(2.53)	(2.25)
Number of observations	412	625	1,140	412	625	1,140
Number of observations censored	—	—	—	112	138	287
Log-likelihood	-201.55	-279.58	-576.35	-887.87	-1,357.91	-2,530.30

* estimate is significant at a 5 percent level. (Standard errors are in parentheses)

As with singles, we ask whether these gender differences are significant. For each set of regressions we conducted tests across all pairings of the equations. The only significant difference occurs when comparing joint-deciding households to wife-deciding households. Moreover, this difference was found for both the probability-of-giving ($\chi^2(16) = 24.26$, p-value $= 0.017$) and the amount-of-giving ($\chi^2(16) = 29.42$, p-value $= 0.021$) regressions. There was no significant difference between households assigning decisionmaking authority solely to husbands and ones reporting joint control for either the probability-of-giving or amount-of-giving equations. This result suggests that when couples bargain, the compromise behavior is especially far from the preferred choices of female deciders.

Next we turn to the question of how gifts are distributed across the different types of charities. Our data allow us to look at the distribution across 12 different functional categories of charitable activity. Here we will see the gender difference again growing larger.

Looking at the means across these 12 areas of charitable activity, a pattern emerges.[9] Among single people, women are more likely than men to give to every single category of charity except one—adult-recreation. Among married people, women are more likely than men to give to all but two categories—adult-recreation and public-benefit. Looking at levels of giving, women also seem to spread their giving dollars more thinly than men, while men appear to have a greater tendency to concentrate their giving. Are these differences significant?

To answer this question, we constructed a test based on a Herfindahl index of the concentration of giving. The Herfindahl index equals one if the household gives to only one type of organization, such as religious groups, while if dollars are spread evenly among all 12 types of organizations the index will reach its lower bound, which in our case is 0.083. The average value of the Herfindahl index for married couples with a male decisionmaker is 0.64, with a female decisionmaker is 0.59 and for couples deciding jointly is 0.63. Tests reveal that indeed married male decisionmakers concentrate their giving significantly more than married female decisionmakers. However, when couples decide jointly, the concentration is not significantly different from when males decide alone, but is significantly different from when females decide.[10] Notice that this is the same pattern seen in the giving equations.

How does this difference manifest itself across charities? In Table 3 we present predicted values for the probability and magnitude of gifts for the 12 areas for a representative household. The table shows predictions for a white, churchgoing family of three, headed by two adults who are high school graduates. The family's income is $39,785 and the family faces a charity price of 0.85. The husband is 45 years old and the wife is 43.

The table reveals that, for this representative household, patterns of giving vary with the assignment of decisionmaking authority. Panel A shows that the wife is significantly more likely to give to health and education than is the husband or a jointly deciding couple, and the husband is significantly more likely to give to adult

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9. Tables are available from the authors, or at http://www.ssc.wisc.edu/~andreoni/.
10. A detailed description of the Herfindahl Index is given in the appendix. These test the difference in conditional expectations of the Herfindahl Index.

Table 3

Charitable Giving by Couples Across Areas of Charitable Activity, by Who Decides

	Husband Decides	Wife Decides	Couples	Test Statistic: Husband Decides vs. Wife Decides	Test Statistic: Couples vs. Husband Decides	Test Statistic: Couples vs. Wife Decides
A. Differences in the Probabilities of Married Males and Females Giving to Specific Types of Charities						
All charities	87.8	83.3	77.2	0.69	3.79*	1.39
Health	27.1	44.3	28.4	4.47**	0.04	6.55**
Education	13.9	25.6	16.1	2.89*	0.16	3.24*
Religious Organizations	75.6	80.3	67.9	0.50	1.26	4.86**
Human services	27.7	31.4	24.8	0.24	0.20	1.33
Environment	10.7	10.5	15.0	0.00	0.67	1.02
Public/society benefit	8.7	9.5	5.3	0.03	0.84	1.64
Recreation—adults	9.5	5.3	2.6	1.29	2.83*	0.35
Arts, culture, and humanities	2.6	8.9	7.6	0.32	0.92	0.25
Youth development	23.3	24.3	21.7	0.02	0.06	0.22
Private community foundations	4.3	11.1	5.5	2.18	0.15	2.26
International/foreign	3.5	6.3	4.3	0.26	0.03	0.29
Other	1.7	1.0	1.0	0.24	0.26	0.00
B. Differences in the Estimated Amounts Married Males and Females Give to Specific Types of Charities						
All charities	1,186.59	1,099.49	1,078.90	0.21	0.40	0.02
Health	49.51	102.78	64.99	4.40**	0.62	3.32*
Education	40.90	80.86	59.22	1.97	0.62	0.83
Religious Organizations	816.66	770.89	789.32	0.08	0.03	0.02
Human services	113.27	162.74	90.32	1.11	0.44	4.59**
Environment	10.11	12.13	15.5	0.09	0.65	0.33
Public/society benefit	11.26	14.20	7.71	0.12	0.35	1.31
Recreation—adults	2.98	7.40	10.53	0.35	2.15	0.35
Arts, culture, and humanities	3.10	11.03	6.69	1.15	0.43	0.47
Youth development	30.17	28.44	27.51	0.03	0.10	0.02
Private community foundations	3.52	7.54	3.52	1.17	0.14	3.50*
International/foreign	6.59	7.31	5.26	0.02	0.11	0.33
Other	2.73	3.25	1.52	0.06	0.67	1.71

Note: These probabilities are constructed from estimating probit models where the dependent variable is whether the household gave to the specific charity type. The probabilities estimates are the predicted probability for a white, churchgoing 45 year old, family of three with ln(income)=10.59125 and price of charity=0.85 in 1992. The male is 45 years old. The female is 43 years old. Both the male and female have high school degrees. Also, no male givers with only a high school degree gave to foreign charities. The prediction in the case of foreign charities was done for males and females who attended college. Test statistics are distributed $\chi2(1)$ under the null-hypothesis that the predictions are equal.

 * statistically significant at 10 percent level.

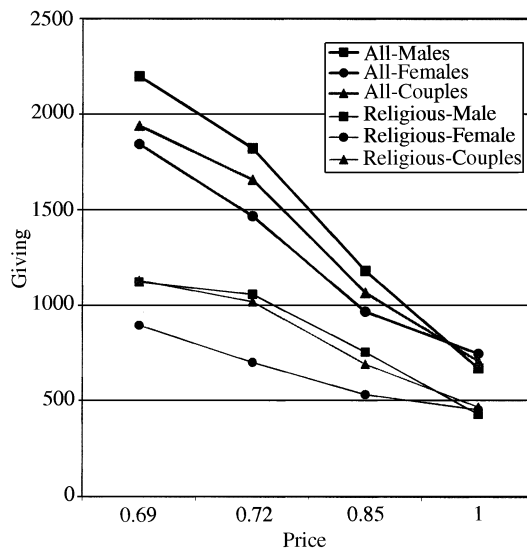** statistically significant at 5 percent level. 2177 observations.

Figure 1
All Giving and Religious Giving by a Representative Household

recreation than is a jointly deciding couple. Jointly deciding couples, however, generally look more like husbands than wives, with one exception—husbands are significantly more likely to give charity than couples.

Panel B shows another interesting difference in amounts given. Wives give much more to health and human services than couples and, regardless of who decides, religious organizations constitute the category that receives the greatest level of support. But as before, couples deciding jointly seem to look more like couples with husbands in charge than ones with wives in charge.

Since the predictions in Table 3 are made for a particular household, it raises the question of whether similar differences are found as we change key variables, such as the price of giving. Figure 1 shows predictions for the median household over a variety of prices. At the price of 0.69 we would predict that married men would give more than married women. As the price of giving rises the difference vanishes, and when the price is unity, females are giving more than males—a result that is strikingly similar to experimental findings (Andreoni and Vesterlund 2001). We can also ask whether the composition of giving also changes with price. A simple way to characterize this is by separating religious giving from all giving. Figure 1 shows that differences in religious contributions account for 64 percent of the difference in male and female giving at the price of 0.69, but is responsible for over 100 percent of the difference at prices 0.72 and 0.85. This indicates that as the price rises, the marital differences over the composition of giving appear more extreme.

VI. Joint Decisionmaking: Does Bargaining Depress Giving?

We have now shown that many of the differences identified with single people carry over to married couples. Household decisionmaking, therefore, seems more consistent with bargaining than with maximizing a single household utility function. In this section, we look more closely at this bargaining interpretation of our data. If bargaining explains the giving patterns we find in the data, are the results consistent with a bargaining interpretation in other ways as well? In particular, does the presumed costliness of bargaining depress giving, making some marginal giving opportunities not worth the effort of haggling over them?

We look for evidence of costly bargaining using two tests. First, looking at the amount given to charity by couples who decide jointly, we estimate their choice as a linear combination of the amount the husband would choose, were he in charge, and the amount the wife would choose were she in charge. If the jointly chosen amount is arrived at through bargaining, this linear combination should reflect the greater bargaining power of husbands by giving more weight to their preferences than to the preferences of wives. If bargaining is costly, the coefficients should sum to less than one, with the shortfall reflecting the costliness of bargaining at the margin. Second, we perform an Oaxaca decomposition on the differences between the giving levels of jointly deciding couples and other couples. In this way, we isolate that part of the difference in giving that is attributable to differences in propensities to give rather than differences in means of the explanatory variables.

First, we estimate giving by jointly deciding couples as a linear combination of the levels of giving that would have been chosen by the husband and wife, had each had sole discretion over giving. Let X_m and X_f be the characteristics of males and females, including household income, price of giving, own age and own education, but excluding spouse's age and education. Define the vectors B_m and B_f as ordinary regression coefficients, and let a_m and a_f be scalars. Then let I_m be an indicator variable equal to one if the male is primary charity decisionmaker, and let I_f and I_c equal one when the female or couple is the decider, respectively. Finally, let G be the level of charitable giving by the household. Then consider the regression equation

$$G = (I_m + a_m I_c)\, X_m\, B_m + (I_f + a_f\, I_c) X_f\, B_f + e,$$

where e is a random error term with a zero mean. When the male is the decider $\hat{G}_m = X_m\, \hat{B}_m$ will serve as the predicted gift, and when the female is the decider it is $\hat{G}_f = X_f\, \hat{B}_f$. However, when the couple makes the decision the prediction is

$$\hat{G}_c = \hat{a}_m\, X_m\, \hat{B}_m + \hat{a}_f\, X_f\, \hat{B}_f$$
$$= \hat{a}_m\, \hat{G}_m + \hat{a}_f\, \hat{G}_f.$$

The scalars a_m and a_f then tell us about how the couple's decision is influenced by the desires of both its members.

An important aspect of this formulation is that we do not constrain the scalars a_m and a_f in any way. For instance, if a_m and a_f sum to one then this would imply that in making a joint decision the household neither creates nor destroys any dollars of

charity. By contrast, if a_m and a_f sum to more than one, then extra charity is created. This would imply some increasing return to joint decisions, such as complementary expertise in identifying efficient charities, or through information-sharing that leads at least one spouse to come to appreciate and to derive utility from the other's charitable choices. Finally, a_m and a_f could sum to less than one, in which case the bargaining is destroying some charity. For instance, spouses could oppose each other's charities and decide jointly in order to monitor their spouse's giving. Also, bargaining from divergent views could lead to more costly decisionmaking, which itself leads to fewer decisions made and fewer dollars spent.

Estimating the a's we find values (and standard errors) of $\hat{a}_m = 0.677$ (0.163) and $\hat{a}_f = 0.260$ (0.160), while their sum is $\hat{a}_m + \hat{a}_f = 0.936$ (0.033). The sum of a_m and a_f is significantly below one, implying that bargaining reduces giving, in this case by an estimated six percent.

What do the relative values of $\hat{a}_m$ and $\hat{a}_f$ tell us? Earlier results suggested that the decisions of couples tended to look more like those of husbands than of wives, and these estimates bear this out. While both $\hat{a}_m$ and $\hat{a}_f$ are significantly different from zero, $\hat{a}_m$ is almost three times $\hat{a}_f$. This provides more evidence that husbands are indeed prevailing in the marital bargain over charitable giving.

Notice that because these estimates are drawn entirely from married couples, the differences cannot be due to self-selection into marriage. There may, of course, be selection into the modes of decisionmaking. To control for systematic differences in the characteristics of households that choose different decisionmaking regimes, we perform a standard Oaxaca decomposition of differences in mean levels of giving across the three types of married-couple households.[11] Mean levels of giving do not in themselves suggest that jointly deciding couples economize on giving due to bargaining costs: Male-deciding households give 14 percent less, on average, and female-deciding households give 1 percent less. Decomposing these mean differences, however, reveals a striking shortfall in giving by married couples who jointly make decisions on how much to give.

We decompose the differences in mean levels of giving across types of couples as

$$G_i - G_j = (\mu_i - \mu_j)\,\beta_i + \mu_j(\beta_i - \beta_j),\ i = m,f,$$

where G_i is the mean level of giving by couples in which the male decides ($i = m$) or the female decides ($i = f$) and G_j is the mean level of giving by couples deciding jointly, and the vectors β and μ are respectively the regression coefficients and the means of the independent variables. The first of the two terms on the right-hand side is the difference in mean giving due to differences in means of the explanatory variables. The second term is the one of interest for our purposes: It is the difference in mean giving due to differential propensities to give.

Looking first at the differences between couples with a male decisionmaker and couples deciding jointly, we decompose a giving shortfall of 14 percent by male-

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11. Oaxaca decomposition relies on the property that the regression coefficients multiplied by the means of the right-hand variables sum to the mean of the dependent variable. While it is theoretically possible to apply this decomposition in a two-stage estimation procedure in which the second stage is OLS (with the inverse Mills ratio as an additional variable), we could not identify any variables that belonged in a first stage only. The consequent collinearity problems between first and second stage regressions were severe. For the purposes of this decomposition, therefore, we use OLS estimation.

decider couples relative to mean giving by couples who decide jointly. The decomposition reveals that differences in mean characteristics predict a much larger shortfall in giving, 37 percent, by households with a male decisionmaker; if they had the joint-deciders' mean characteristics, households with male decisionmakers would give 24 percent *more* than the jointly deciding couples do. The comparison between couples with a female decisionmaker and couples who decide jointly is similar. The observed 1 percent shortfall in mean giving by households in which the woman decides is decomposed into a predicted 28 percent shortfall due to differences in mean characteristics and a 29 percent excess in predicted giving if these households had the mean characteristics of households who decide jointly. In both cases, joint decisionmaking is associated with depressed levels of giving, consistent with the view that costly bargaining is operating at the margin.

VII. Who Decides?

Given the significance of who is the decisionmaker, it is natural to ask what factors influence the selection of decisionmakers. We explore this using a multinomial logistic modeling of the choice of decider, with results presented in Table 4. The base case is that the wife decides, hence the first column of estimates gives the effect of each variable on the probability that the husband decides, and the second column looks at the probability that the decision is made jointly. In Table 4 we include a dummy variable equal to one if the household reports the male is the primary earner. The other variables intended to reflect human capital are relative age, measured as the husband's age minus the wife's, and relative educational attainment. To control for cohort effects, we include average age and average education in the household. We also include ethnicity and churchgoing to account for culture and tastes, and we include family size as it may influence the bargaining powers and the threat-point for separate-spheres bargaining.

Table 4 shows that the coefficient on who is the primary earner is large and statistically significant—if the husband is reported to be the primary earner, he is far more likely to make the giving decisions, the couple is somewhat more likely, and the wife is less likely. If being the primary earner strengthens one's bargaining power in a marriage, then this suggests that, on average, being the charity provider is a task that people seek, and that the value to being the charity decider conveys an advantage that outweighs any cost that comes with it.[12]

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12. To address the possible endogeneity of the primary-earner variable, we performed a two-stage estimation in which the first stage predicts primary earner status from age, education, occupation of head, family size, and ethnic variables. The key exclusion restrictions in the first stage are that the occupation of the head predicts whether the primary earner is male or female, but has no effect on who makes the charity decisions. The other exclusion restriction is that the returns to education differ by education level in the first stage but not in the second. We find that the probability that the man is the sole decisionmaker is still increasing in his educational advantage relative to his partner, and increases in average education still increase the likelihood that decisions are made jointly. However, we now find that increasing the likelihood that the female is the primary earner *decreases* the likelihood of her being the sole decider. As the probability that the female is the primary earner goes to one, the probability that she is the sole decider goes to zero and the probability that the couple decides jointly goes to one. One interpretation is that as the husband loses power over the household's earnings, he bargains harder to retain at least shared control over the household's decisions on charity.

Table 4
How Households Choose the Primary Giver, Multinomial Logit Model

	Probability that the Male is the Giver	Probability that the Couple Shares Giving Responsibility
Male is primary earner	0.908*	0.262
	(0.24)	(0.15)
Male age less female age	−0.008	−0.006
	(0.01)	(0.01)
Male education less female education	0.280*	0.154*
	(0.07)	(0.05)
Average age	0.004	0.003
	(0.005)	(0.004)
Average education	0.000	0.172*
	(0.07)	(0.05)
Hispanic	0.416*	−0.225
	(0.18)	(0.16)
Black	0.092	−0.370*
	(0.21)	(0.17)
Family size	0.007	−0.064
	(0.05)	(0.04)
Churchgoer	0.037	0.355*
	(0.12)	(0.10)
Constant	−1.538*	0.081
	(0.42)	(0.31)
Predicted probability if male is the primary earner	0.175	0.565
Predicted probability if female is the primary earner	0.092	0.568
Number of observations	2,560	
Log-likelihood	−2,527.079	

Note: The predicted probabilities are for a churchgoing family of three that includes a 45-year-old white male high school graduate and a 43-year-old white female high school graduate. Female being the primary giver is the base category. (Standard errors are in parentheses)
* estimate is significant at a 5 percent level.

We also see in Table 4 that age differences are not a significant influence on who is the decider, but educational differences are. The greater the husband's education relative to the wife's, the greater the likelihood that the husband or the couple is the decider, although couples with higher average levels of education are more likely to make joint decisions. This is consistent with the view that education is linked to bargaining power, and decisionmaking is a utility-providing privilege. It could also be true, however, that more educated spouses are more skilled at evaluating worthy charities. An additional finding is that in Hispanic households the male is unilaterally more likely to be reported to be the decisionmaker.

VIII. Summary and Conclusion

Several striking patterns pervade the analysis. First, single men and women are significantly different in their propensities to give, the amount they give, and the distributions of those gifts. Hence, there are clear, systematic sex differences when it comes to charitable giving.

How are these differences resolved within a marriage? Our findings argue against the hypothesis that a married couple behaves as if governed by a single utility function and are more consistent with a model of household bargaining

We also find that decisionmaking over charitable giving is reasonably interpreted as a privilege as well as a task, and that when a particular spouse has sole control the decisions seem to reflect his or her own tastes. But when decisions are made jointly, husbands seem to be getting more of what they want than wives do. In both the probit regressions predicting whether a household gives and tobit regressions predicting the amounts given, the estimated giving equations for households with wives deciding are significantly different from those with couples deciding, with no corresponding difference between the equations for households with couples and husbands in charge. Further, we find that the ''compromise'' achieves about 68 percent of the male preference and only 26 percent of the female preference. The sum of these weights is significantly less than one, suggesting that the costliness of bargaining reduces giving on average by six percent. Decomposing differences in the giving equations leads to even larger estimates of the shortfall in giving due to behavior of couples who share decisionmaking: Standardizing for the mean characteristics of jointly deciding households, an Oaxaca decomposition suggests that transferring decisionmaking authority from the couple to the husband would increase giving by 24 percent, and transferring it to the wife would increase giving by 29 percent.

Finally, how does the couple select who will take the task of being the charitable decisionmaker? Our analysis finds that the probability that the wife controls giving decisions decreases when her husband earns more than she does or is more highly educated than she is—two measures generally associated with bargaining power.

Although the marital bargain on charity mostly favors men when it comes to total giving, when women do become the deciders we find that they wield their power to influence the disbursement of the family's charity. By contrast to men, women tend to give to a greater variety of charitable activities, giving less to each. Married women especially favor health and education, while husbands are more generous than wives only within the sphere of adult recreation.

An important aspect of our results is that they provide direct evidence to support the growing feeling among fundraisers that men and women behave very differently with respect to charitable giving. Men are more sensitive to both price and income, for instance, and tend to concentrate their giving among fewer kinds of charities. And when the price of giving is low, men tend to give more to charity than women, but when the price is high the opposite is true. In sum, by looking at the family as a complicated institution our analysis reveals a rich and complex set of relationships between gender, economic status, tastes for charity, and bargaining strength. Further exploration into charity as well as other household public goods could prove to be an exciting frontier for further economic research.

Table A1

Definitions of Key Variables

Variable	Definition
Primary earner is male	Respondents are asked, ''Are you the chief wage earner?'' If the respondent answers ''No'' then the individual is asked, ''Who is the chief wage earner in this household?'' The respondent can answer Husband, Wife, Father, Mother, Son, Daughter, Other Male, Other Female. The observation is only used if respondent or spouse is the primary earner. If the male is the chief wage earner, the Primary earner variable equals 1; if the female is the primary earner it equals 0.
Gives to charity	Indicator variable equal to 1 if the respondent has given to at least one of the 12 charity categories in the previous calendar year and 0 otherwise.
Total contributions	The sum of the amount of money the respondent has reported giving to each of the 12 charity groups in the previous calendar year, expressed in 1993 dollars.
Price	Equals 1 minus the marginal tax rate for itemizers, and 1 for nonitemizers. Tax rates are calculated from information on income, itemization status, and other key variables.
Income	Respondents reported income in one of 13 before-tax income ranges. We use the midpoint of the range to which they belong as the income measure, in 1993 dollars. For those who report earning less than $7,000 we use $5,000 and for those who report earning more than $100,000 we use $125,000.
Age of male, age of female	Age of respondent or spouse, as appropriate.
Male or female high school graduate, attended college, college graduate	Indicator variables for highest level of education obtained. The omitted category is those who did not complete high school.
Hispanic, Black	These are indicators for the race of the respondent. The data set only contains racial information for the respondent, not the spouse.
Family size	This is the response to the question, ''How many persons, including yourself and all children, are living in this household?''
Churchgoer	Indicator that respondent claims to go to church or synagogue services at least once or twice a month.
Herfindahl index	Let S_j, $j = 1, \ldots, 12$, be the amount of charity the respondent gives to charity class j in the previous calendar year divided by the total amount of charity given. The Herfindahl Index equals $\Sigma\, S_j^2$. We only calculate this index for respondents who have given to at least one charity in the previous calendar year. See Hirschman (1964) for details.

Table A2
Summary Statistics

	Single Males	Single Females	Husband Decides	Wife Decides	Couple Jointly
Primary earner is male	—	—	0.951	0.874	0.907
	—	—	(0.22)	(0.33)	(0.29)
Gives to charity	0.579	0.595	0.699	0.749	0.719
	(0.49)	(0.49)	(0.46)	(0.43)	(0.45)
Total contributions	401.066	315.640	928.316	741.110	872.219
	(1,407.37)	(688.38)	(2,075.12)	(1,730.84)	(1,850.35)
Price	0.924	0.948	0.895	0.895	0.879
	(0.12)	(0.10)	(0.12)	(0.12)	(0. 12)
Income in thousands	30.662	23.300	43.813	45.590	48.042
	(24.75)	(20.57)	(29.34)	(29.47)	(29.67)
Age of male	45.885	—	48.664	48.156	48.966
	(18.86)	—	(15.27)	(15.38)	(15.31)
Age of female	—	52.431	46.045	45.349	46.369
	—	(19.69)	(15.19)	(14.73)	(14.82)
Male high school graduate	0.240	—	0.303	0.344	0.279
	(0.43)	—	(0.46)	(0.48)	(0.45)
Male attended college	0.271	—	0.241	0.263	0.243
	(0.44)	—	(0.43)	(0.44)	(0.43)
Male college graduate	0.238	—	0.274	0.212	0.328
	(0.43)	—	(0.45)	(0.41)	(0.47)
Female high school graduate	—	0.310	0.410	0.367	0.358
	—	(0.46)	(0.49)	(0.48)	(0.48)
Female attended college	—	0.223	0.225	0.299	0.244
	—	(0.42)	(0.42)	(0.46)	(0.43)
Female college graduate	—	0.220	0.186	0.197	0.270
	—	(0.42)	(0.39)	(0.40)	(0.44)
Hispanic	0.113	0.104	0.163	0.116	0.091
	(0.32)	(0.3l)	(0.37)	(0.32)	(0.29)
Black	0.153	0.206	0.097	0.099	0.069
	(0.36)	(0.40)	(0.30)	(0.30)	(0.25)
Family Size	1.979	2.130	3.353	3.349	3.222
	(1.38)	(1.50)	(1.35)	(1.38)	(1.30)
Churchgoer	0.337	0.549	0.559	0.542	0.618
	(0.47)	(0.50)	(0.50)	(0.50)	(0.49)
Year=1992	0.588	0.607	0.619	0.624	0.688
	(0.49)	(0.49)	(0.49)	(0.48)	(0.46)
Number of observations	425	587	485	716	1,359

(Standard deviations are in parentheses.) There is missing income data on 57 single males, 87 single females, 73 married males, 91 married females and 219 married couples.

Table A3
Summary Statistics: Probability of Giving to Specific Charities

	Single Males	Single Females	Husband Decides	Wife Decides	Couple Jointly
Health	0.209	0.242	0.272	0.388	0.322
	(0.41)	(0.43)	(0.45)	(0.49)	(0.47)
Education	0.108	0.133	0.181	0.236	0.239
	(0.31)	(0.34)	(0.39)	(0.42)	(0.43)
Religious organizations	0.341	0.404	0.501	0.520	0.521
	(0.47)	(0.49)	(0.50)	(0.50)	(0.50)
Human services	0.155	0.203	0.272	0.345	0.297
	(0.36)	(0.40)	(0.45)	(0.48)	(0.46)
Environment	0.087	0.116	0.113	0.152	0.150
	(0.28)	(0.32)	(0.32)	(0.36)	(0.36)
Public/society benefit	0.073	0.094	0.128	0.120	0.104
	(0.26)	(0.29)	(0.33)	(0.33)	(0.31)
Recreation—adults	0.045	0.020	0.062	0.049	0.052
	(0.21)	(0.14)	(0.24)	(0.22)	(0.22)
Arts, culture, and humanities	0.052	0.075	0.080	0.084	0.098
	(0.22)	(0.26)	(0.27)	(0.28)	(0.30)
Youth development	0.113	0.126	0.206	0.232	0.213
	(0.32)	(0.33)	(0.40)	(0.42)	(0.41)
Private community foundations	0.028	0.032	0.056	0.068	0.055
	(0.17)	(0.18)	(0.23)	(0.25)	(0.23)
International/foreign	0.012	0.019	0.039	0.043	0.039
	(0.11)	(0.14)	(0.19)	(0.20)	(0.19)
Other	0.035	0.034	0.031	0.039	0.027
	(0.18)	(0.18)	(0.17)	(0.19)	(0.16)
Number of observations	425	587	485	716	1,359

(Standard deviations are in parentheses.)

Table A4
Summary Statistics: Amount Given to Specific Charities

	Single Males	Single Females	Husband Decides	Wife Decides	Couple Jointly
Health	38.60	29.37	69.26	52.37	48.56
	(224.09)	(114.67)	(308.48)	(172.26)	(273.74)
Education	12.35	19.60	75.75	71.84	83.63
	(71.55)	(149.83)	(440.29)	(599.22)	(448.42)
Religious organizations	237.74	185.52	507.58	392.66	564.20
	(1,220.9)	(483.99)	(1,160.6)	(1,143.7)	(1,420.9)
Human services	26.57	33.06	86.68	105.58	75.64
	(1,14.97)	(164.89)	(345.68)	(673.86)	(380.23)
Environment	22.16	9.51	13.17	15.46	10.84
	(262.27)	(50.02)	(74.08)	(83.67)	(76.53)
Public/society benefit	10.45	10.24	24.94	19.44	16.30
	(53.50)	(61.58)	(111.51)	(118.80)	(113.11)
Recreation—adults	11.99	1.45	23.27	5.66	6.95
	(136.17)	(13.76)	(248.90)	(49.08)	(60.62)
Arts, culture, and humanities	7.58	7.98	28.73	22.73	14.44
	(50.96)	(40.25)	(230.14)	(246.96)	(81.45)
Youth development	30.93	12.98	36.35	26.57	28.11
	(228.80)	(55.47)	(162.19)	(89.58)	(109.15)
Private community foundations	6.47	6.44	12.96	15.59	13.39
	(19.38)	(20.72)	(64.03)	(70.39)	(87.99)
International/foreign	4.86	7.23	55.33	12.40	16.10
	(9.68)	(38.33)	(654.44)	(83.47)	(197.34)
Other	7.86	8.02	9.56	15.86	6.52
	(32.52)	(28.53)	(57.09)	(70.39)	(37.88)
Number of observations	425	587	485	716	1,359

(Standard deviations are in parentheses.)

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